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INDEX OF MINING ENGINEERING LITERATURE

COMPRISING AN
INDEX OF MINING, METALLURGICAL, CIVIL, MECHANICAL,
ELECTRICAL AND CHEMICAL ENGINEERING
SUBJECTS AS RELATED TO MINING
ENGINEERING

ALSO
COSTS OF MINING AND METALLURGICAL
OPERATIONS, ETC.

BY
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SECOND VOLUME
FIRST THOUSAND

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PREFACE TO SECOND VOLUME OF INDEX

IN order that an index may be valuable it must be added to from time to time, including references to the new material in the current technical literature and annual proceedings of societies. To this end the Index of Mining Engineering Literature has been enlarged by the preparation of an additional volume covering the list of publications indexed for the first volume, besides a number of other publications. Still other publications would have been incorporated in this volume of the Index had they been available.

The two special features that distinguish this Index from others are cross-references and multiple references. By the former is meant the reference to other subjects under which information can be obtained relative to the special subject in question; and by the latter is meant the breaking up of a paper or article into a number of references which are distributed under appropriate headings.

The special feature of the present volume of the Index is the list of references on cost which are distributed over and cover practically every phase of mining and metallurgical practice. These references to costs are particularly interesting and valuable to the practicing engineer.

As was stated in the former volume of the Index, the work has been the result of the unaided labor of the author, and all errors are, therefore, due to his oversight.

WALTER R. CRANE.

SCHOOL OF MINES,
THE PENNSYLVANIA STATE COLLEGE,
June 1, 1912.

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- Am Jour. Min. — American Journal of Mining.
 Coll. Engr — Colliery Engineer
 Coll. Engr. & Met. Miner. — Colliery Engineer and Metal Miner.
 Engineering, London.
 E & M. J. — Engineering and Mining Journal.
 J C M. I. — Journal of the Canadian Mining Institute
 J. C. & M. Soc. S. A. — Journal of the Chemical and Metallurgical Society
 of South Africa.
 J. W. Soc. E. — Journal of the Western Society of Engineers.
 J M. Soc. N. S. — Journal of the Mining Society of Nova Scotia.
 Min. Mag. (old series). — Mining Magazine.
 Min Mag. (new series). — Mining Magazine.
 Min Mag., London. — Mining Magazine, London.
 M. & M. — Mines and Minerals.
 Min & Sci. Press. — Mining and Scientific Press.
 P. C. M. & M. Soc. S. A — Proceedings of the Chemical, Mining and Met-
 allurgical Society of South Africa
 P. E. Soc. W. Pa. — Proceedings of the Engineering Society of Western
 Pennsylvania.
 P. Soc. P. E. E. — Proceedings of the Society for the Promotion of Engi-
 neering Education.
 Sch. Mines Quart. — School of Mines Quarterly.
 T. A. I. M. E — Transactions of the American Institute of Mining Engineers.
 T Au I. M E. — Transactions of the Australian Institute of Mining
 Engineers
 T I M E. — Transactions of the Institution of Mining Engineers.
 T. I. M. & M. — Transactions of the Institute of Mining and Metallurgy.
 T L S. M. I. — Transactions of the Lake Superior Mining Institute
 T N. S. I. M. & M. E — Transactions of the North Staffordshire Institute
 of Mining and Mechanical Engineers.
 T. F. C. M. I. — Transactions of the Federated Canadian Mining Institute.
 U. S. G. S. Publications. — United States Geological Survey Publications,
 except Water Supply Papers.

PUBLICATIONS INCOMPLETELY INDEXED

Reports of Surveys, Proceedings of Societies, etc.

- Ann. Min. Rept. N. S. Wales. — Annual Mining Report of New South
 Wales.
 Cal. Miners' Assoc. Ann. — California Miners' Association Annual.
 Columbia Engr. — Columbia Engineer.
 P. I. C. E — Proceedings of the Institute of Civil Engineers.

- Rept. Census Office, Mines and Quarries. — Report Census Office, Mines and Quarries.
 Rept. Inspr. Mines Pa — Report of the Inspector of Mines of Pennsylvania.
 Rept. Zinc Comm. Canada — Report of the Commission Appointed to Investigate the Zinc Resources of British Columbia, etc.
 Second Geol. Sur. Pa — Second Geological Survey of Pennsylvania.
 The Mines of the West. — Raymond.
 The Univ. Geol. Surv. of Kans. — The University Geological Survey of Kansas.
 Univ of Ill Bull. — University of Illinois Bulletin.
 U. S. Bureau of Mines. — United States Bureau of Mines.

JOURNALS

- Am Engr. & R R Jour — American Engineer and Railroad Journal.
 Coll Guard. — Colliery Guardian, London.
 Concrete and Constructional Engineering, London.
 Electrochemical Industry
 Eng. Mag. — Engineering Magazine.
 Eng. News — Engineering News.
 Eng -Cont. — Engineering Contracting.
 Mining World.

BOOKS

- Anthracite Coal Industry, Roberts
 Aerial or Wire Rope Tramways, Willis-Taylor.
 Coll. Working and Management, Bulman and Redymayne.
 Diamond Drilling, Denny
 Earthwork and Its Cost, Gillette.
 Gold Min. & Mill. W. Aus. — Gold Mining and Milling Western Australia, Charleton.
 Kents' Mech. Engrs. Pocket-Book — Kents' Mechanical Engineers' Pocket-Book.
 Mech. Eng. of Coll. — Mechanical Engineering of Collieries, Futers.
 Mine Building Construction.
 Miners Pocket-Book, Lock.
 Ore Dressing, Richards.
 P. C M. — Practical Coal Mining, Ed. W. S. Boulton.
 R.R. Construction. — Railroad Construction, Webb.
 Sci. Am. Supp. — Scientific American Supplement.
 The Gold Mines of the Rand, Hatch and Chalmers.
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 The Mechanical Handling of Material, Jimmer.
 Tin Deposits of the World.
 Tunneling, Prelini.
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COLLIERY DISASTERS. By F. A. Hill. E. & M. J., vol. 86, p. 18. 2 columns.

See also COAL DUST AS AN EXPLOSIVE, MINE FIRES, AND MINE EXPLOSIONS.

MINE ACCIDENTS. By J. T. Quine. T. L. S. M. I., vol. 14, p. 71. 10½ pages.

MINE ACCIDENTS. By S. Reynolds. M. & M., vol. 29, p. 412. 3 columns.

ACCIDENTS IN STOPES. E. & M. J., vol. 87, p. 300. ½ column.

MINING ACCIDENTS IN CORNWALL. Min. Mag., London, vol. 1, p. 119. 6 columns. I.

ACCIDENTS IN THE COAL MINES OF GREAT BRITAIN. E. & M. J., vol. 89, p. 975. 4 columns.

COAL-MINE ACCIDENTS IN GREAT BRITAIN. E. & M. J., vol. 89, p. 1029. 2 columns.

COAL-MINING ACCIDENTS IN 1907. M. & M., vol. 29, p. 326. ½ column.

METAL-MINING FATALITIES IN IDAHO, FOR 1910. M. & M., vol. 31, p. 700. 1 column.

COAL-MINE DISASTERS IN NORTH AMERICA FROM 1869 TO 1910. E. & M. J., vol. 90, p. 949. Table.

MINE-ACCIDENT INVESTIGATIONS. By G. S. Rice. M. & M., vol. 31, p. 282. 6 columns.

MINE-ACCIDENT INVESTIGATION OF THE UNITED STATES GEOLOGICAL SURVEY. By G. S. Rice. J. W. Soc. E., vol. 14, p. 784. 37 pages. I.

MINE ACCIDENTS AND THE BUREAU OF MINES. By G. S. Rice. Min. & Sci. Press, vol. 101, p. 471. 5 columns.

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ECONOMY AS RELATED TO MINE ACCIDENTS. By H. E. Coll. E. & M. J., vol. 87, p. 359. 8 columns.

LEGISLATION ON ACCIDENTS. Min. & Sci. Press, vol. 20, p. 33. ½ column.

COAL TRUSTS AND SAFE MINING (?). By W. H. Reynolds. M. & M., vol. 31, p. 633. 5 columns.

RESULTS OF INQUIRIES INTO RECENT MINE DISASTERS. By F. W. Parsons. E. & M. J., vol. 85, p. 259. 14 columns. I.

Loss of Life in Mining

DEATH FROM ACCIDENTS IN MINES. P. C. M. & M. Soc. S. A., vol. 7, p. 171. 5 columns.

FATAL ACCIDENTS IN COAL MINES. By F. L. Hoffman. E. & M. J., vol. 85, p. 34. 8½ columns.

FATAL ACCIDENTS IN COAL MINES OF AMERICA. By F. L. Hoffman. E. & M. J., vol. 86, p. 1207. 12½ columns.

FATAL ACCIDENTS IN COAL MINES OF NORTH AMERICA. By F. L. Hoffman. E. & M. J., vol. 88, p. 1253. 10 columns.

FATAL ACCIDENTS IN AMERICAN METAL MINES. By F. L. Hoffman. E. & M. J., vol. 89, p. 511. 7 columns.

FATAL ACCIDENTS IN THE COAL MINES OF NORTH AMERICA By F L Hoffman. E & M. J., vol 90, p. 1313. 9½ columns.

DATA ON MORTALITY AND MORBIDITY OF MINERS By F. L. Hoffman. E & M. J., vol 89, p. 1321, 9½ columns; vol 90, p 23. 10 columns.

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ACCIDENTS IN LOADING AND FIRING EXPLOSIVES M. & M., vol. 29, p. 382 2 columns

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- CARELESSNESS WITH ELECTRICITY. E. & M. J., vol. 90, p. 726. 1½ columns.
- SAFE USE OF ELECTRICITY IN GASEOUS MINES. M. & M., vol. 31, p. 126. 1 column.
- See also ELECTRICITY IN THE MINE.
- PECULIAR MINE ACCIDENT. A Fire Resulting from Substituting Crude Petroleum for Car Lubricating Oil. By J. Elliott. M. & M., vol. 29, p. 488. 1½ columns.
- DANGEROUS GASES CAUSING MINE ACCIDENTS. T. Au. I. M. E., vol. 9, p. 37. 2 pages.
- See also MINE EXPLOSIONS AND MINE GASES.
- CARELESSNESS IN MINING: Cause of Accidents. E. & M. J., vol. 89, p. 526. ½ column.
- CARELESSNESS IN MINES CAUSE OF ACCIDENTS. M. & M., vol. 30, p. 355. ½ column.
- COAL-MINE ACCIDENTS ARE DUE TO VIOLATIONS OF MINE LAWS. E. & M. J., vol. 88, p. 1176. 1½ columns.
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- THE RESPONSIBILITY FOR RECENT COAL-MINE DISASTERS. E. & M. J., vol. 85, p. 969. 3½ columns.
- ACCIDENTS DUE TO LAX DISCIPLINE. E. & M. J., vol. 90, p. 1044. ½ column.
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- Protection in Mining**
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- MINE-ACCIDENT PREVENTION. By J. J. Rutledge. M. & M., vol. 31, p. 276. 4½ columns.
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- PRECAUTIONARY SUGGESTIONS TO ALABAMA COAL MINERS: Regarding Accidents. E. & M. J., vol. 89, p. 478. 2 columns.
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- PREVENTION OF ACCIDENTS IN MINING. T. L. S. M. I., vol. 14, p. 93. 1 page.
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SAFETY MEASURES IN MINING. By Donald Macaulay and L. G. Irvine. P. C. M. & M. Soc. S. A., vol. 6, p. 148, 17 columns; p. 197, 3 columns; p. 226, 4 columns; p. 251, 4 columns; p. 292, 32½ columns; p. 336, 5½ columns; p. 369, 1 column; vol. 7, p. 10, 3½ columns; p. 36, 15 columns; p. 76, 14 columns; p. 111, 18 columns; p. 159, 32 columns

TO PREVENT BLOWN-OUT SHOTS. P. C. M. & M. Soc. S. A., vol. 9, p. 319. 2 columns.

See also **BLASTING IN MINES**

HOW EUROPEAN COLLIERIES ARE SAFEGUARDED. E. & M. J., vol. 89, p. 829. 7½ columns.

AUTOMATIC PROTECTIVE SWITCH GEAR FOR COLLIERY SERVICE. By E. B. Wedmore. T. I. M. E., vol. 38, p. 416. 14 pages. I.

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See also **OVERWINDING AND ITS PREVENTION, AND SAFETY CATCHES FOR MINE CAGES**

See also **MINE SUPPORT: Conditions Affecting.**

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Rescue Work in Mines

RESCUE WORK IN MINES. Min. & Sci. Press, vol. 98, p. 349. 2 columns. I.

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- RESCUE WORK AFTER MINE EXPLOSIONS. E. & M. J., vol. 90, p. 82. 3½ columns.
- RESCUE WORK AT THE ST. PAUL MINE, CHERRY, ILLINOIS. E. & M. J., vol. 88, p. 1073. 1½ columns
- THE POSSIBILITIES OF RESCUE WORK IN CONNECTION WITH MINE EXPLOSIONS AND FIRES. By J. S. Hal-dane. T. I. M. E., vol. 39, p. 458. 27 pages. I.
- RESCUING THE MEN ENTOMBED AT ALPHA SHAFT NEAR ELY, NEVADA. By E. W. Walter. E. & M. J., vol. 85, p. 407. 3½ columns.
- TO AVOID RESCUE WORK. M. & M., vol. 30, p. 593. 1 column.
- PROVISIONS FOR MINE RESCUE IN BRITISH COLUMBIA. E. & M. J., vol. 90, p. 201. 1 column.
- COLLIERY RESCUE BRIGADES IN GREAT BRITAIN. M. & M., vol. 31, p. 667. ½ column.
- SUGGESTIONS FOR THE ORGANIZATION OF COLLIERY RESCUE BRIGADES. By Sgt. A. T. Winborn. T. I. M. E., vol. 37, p. 81, 19 pages. I.; p. 294, 20 pages.
- THE AEROLITH RESCUE APPARATUS. M. & M., vol. 31, p. 521. 3½ columns. I.
- A NEW BREATHING APPARATUS. M. & M., vol. 31, p. 759. 2½ columns. I.
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- THE WEG BREATHING APPARATUS. E. & M. J., vol. 85, p. 366. 2 columns. I.
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- ROYAL COMMISSION ON MINES AND BREATHING APPARATUS. P. C. M. & M. Soc. S. A., vol. 8, p. 94. 3 columns.
- POINTS IN BREATHING APPARATUS. P. C. M. & M. Soc. S. A., vol. 8, p. 397. ½ column.
- REQUIREMENTS OF A BREATHING APPARATUS FOR USE IN MINES. By W. E. Mingramm. T. A. I. M. E., vol. 39, p. 341. 9½ pages. I.
- THE USE OF BREATHING APPARATUS AT A MINE FIRE IN CAPE BRETON, WITH SOME NOTES ON THE CENTRAL RESCUE STATION OF THE DOMINION COAL COMPANY, LIMITED, AT GLACE BAY, CAPE BRETON, NOVA SCOTIA. By F. W. Gray and James McMahon. T. I. M. E., vol. 37, p. 100. 18 pages.
- BREATHING APPARATUS FOR USE IN MINES: DISCUSSION. T. I. M. E., vol. 36, p. 53. 3 pages.
- RESPIRATION DEVICES FOR MINES: The Artificial Regeneration of Air for Respiration in Life-Saving Apparatus for Mining Service. P. C. M. & M. Soc. S. A., vol. 5, p. 191. 2 columns.
- SELF-CONTAINED RESPIRATING APPARATUS IN MINES. By A. E. Davidson. M. & M., vol. 29, p. 118. ½ column.
- OXYGEN HELMETS USED AT MINE FIRES. By O. Callidge. M. & M., vol. 30, p. 712. 1 column.
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- LIQUID OXYGEN FOR RESCUE WORK IN COAL MINES. By A. Gradenwitz. E. & M. J., vol. 88, p. 923. 4½ columns. I.
- TESTS OF LIFE-SAVING APPLIANCES FOR MINES. By R. Grimshaw. E. & M. J., vol. 87, p. 1192. 2 columns.
- RESCUE APPARATUS IN AUSTRIAN MINES. E. & M. J., vol. 87, p. 414. ½ column.
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ON THE PRACTICAL USE AND VALUE OF COLLIERY RESCUE: Apparatus, and the Organization of Rescue Corps. By Geo. B Walker. T. I. M. E., vol 36, p. 536. 19 pages.

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REGENERATION OF AIR FOR SUBMARINES WITH FUSED SODIUM PEROXIDE P. C. M. & M. Soc. S. A., vol. 7, p. 51. 1 column.

EUROPEAN LAWS REGARDING BREATHING APPARATUS. M. & M., vol 31, p. 413. ¾ column.

COAL COMPANIES ESTABLISH RESCUE STATIONS. E. & M. J., vol 87, p 951. 2 columns.

MINE RESCUE LABORATORY. By R. Y. Williams M. & M., vol. 29, p. 537 2 columns. I.

AN ENGLISH RESCUE STATION. M. & M., vol. 29, p. 100. 3 columns. I.

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RESCUE STATIONS IN ILLINOIS COAL-MINING LOCALITIES. By R. Y. Williams J. W. Soc. E., vol 15, p 655 23½ pages I

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Compensation for Injuries

MINER'S ACCIDENT RELIEF FUND. E. & M J., vol. 90, p. 25. ¾ column.

COMPENSATION TO WORKERS FOR ACCIDENTAL INJURIES. By M. M. Duncan E. & M. J., vol. 88, p. 519. 4½ columns.

COMPENSATION FOR INDUSTRIAL ACCIDENTS By D. Ross. Min. & Sci. Press, vol. 101, p. 744. 5½ columns.

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TAX FOR COMPENSATION TO INJURED. P C. M. & M Soc. S. A., vol 9, p. 246. Note.

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MINER'S BENEFIT FUND E & M. J., vol. 90, p. 1013. ¾ column.

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LIABILITY FOR INDUSTRIAL ACCIDENTS.

By Sion B. Smith. M. & M., vol. 31, p. 501. 5 columns.

POSSIBILITIES OF A NEW LIABILITY LAW. By S. Reynolds. M. & M., vol. 31, p. 532. 7½ columns.

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First Aid in Mining Accidents

FIRST AID TO THE INJURED IN COAL MINES. By M. J. Shields
Coal Mining Supplement, E. & M. J., vol. 88, p. 42. 8 columns I.

FIRST AID FOR INJURED SPINES. By T. C. Harvey. M. & M., vol. 31, p. 538 1½ columns. I.

SUGGESTIONS FOR ORGANIZED UNDERGROUND AMBULANCE WORK. T. I. M. E., vol. 37, pp. 42-44, 218-223.

FIRST-AID CORPS IN ALABAMA COAL MINES E. & M. J., vol. 89, p. 1166. ½ column.

WILL FIRST AID CORPS LAST? M. & M., vol. 29, p. 407. 1 column.

ORGANIZATION OF FIRST-AID CORPS. By M. J. Shields M. & M., vol. 29, p. 379. 3½ columns

FIRST-AID WORK IN NEW SOUTH WALES. M. & M., vol. 30, p. 366. ½ column.

THE FIRST AID MOVEMENT. By H. H. Stock. M. & M., vol. 29, p. 243. 11 columns. I.

FIRST-AID WORK AT COAL MINES. By J. H. Ketner. M. & M., vol. 31, p. 490. 2 columns. I.

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APPARATUS FOR CONVEYING WOUNDED MEN FROM STOPES. E. & M. J., vol. 89, p. 1263. 1 column. I.

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Falls of Roof and Walls in Mines

FALLS IN SHAFTS: Shaft Accidents. By F. H. Wynne. T. I. M. E., vol. 38, p. 653 18 pages.

FALL OF LABORER DOWN THE RED JACKET SHAFT. E. & M. J., vol. 90, p. 749 Note.

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ACCIDENTS CAUSED BY FALL OF ROCK AND COAL. E. & M. J., vol. 88, p. 412. ½ column.

ACCIDENTS CAUSED BY FALLING ROCK IN METAL MINES. E. & M. J., vol. 87, p. 301. 1½ columns

SUMMARY OF THE "REPORT OF A COMMITTEE APPOINTED BY THE ROYAL COMMISSION ON MINES TO INQUIRE INTO THE CAUSES OF AND MEANS OF PREVENTING ACCIDENTS FROM FALLS OF GROUND, UNDERGROUND HAULAGE, AND IN SHAFTS: Shaft Accidents. By F. H. Wynne. T. I. M. E., vol. 38, p. 653. 18 pages.

SUMMARY OF THE "REPORT OF A COMMITTEE APPOINTED BY THE ROYAL COMMISSION ON MINES TO INQUIRE INTO THE CAUSES OF AND MEANS OF PREVENTING ACCIDENTS FROM FALLS OF GROUND, UNDERGROUND HAULAGE, AND IN SHAFTS," Part II: Falls of Roof and Sides. By W. Charlton and F. H. Wynne. T. I. M. E., vol. 39, p. 378. 20 pages.

THE ALPHA SHAFT DISASTER. By W. S. Larsh. M. & M., vol. 29, p. 104. 4 columns. I

See also **SUBSIDENCE IN MINE WORKINGS.**

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Inundation in Mines

DANGER OF INRUSHES OF SURFACE WATER. E. & M. J., vol. 90, p. 973. 4½ columns. I

TAPPING MINE WATER UNDER GREAT PRESSURE By Robert Sibley. E. & M. J., vol. 85, p. 562. 9½ columns. I

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THE MONTEREY FLOOD AND SAN LUISITO BRIDGE. By S. J. Lewis. Min. & Sci. Press, vol. 99, p. 494. 4½ columns. I.

RECLAIMING A FLOODED GYPSUM MINE. By E. H. Fishack. E. & M. J., vol. 85, p. 1098. 3 columns. I.

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Coal Dust as an Explosive Agent

DUST IN MINES. Colliery Engineer, vol. 10, p. 152; vol. 12, pp. 113, 196, 268; vol. 13, pp. 6, 151.

THE BAROMETRIC AND TEMPERATURE CONDITIONS AT THE TIME OF DUST EXPLOSIONS IN THE APPALACHIAN COAL MINES. By N. H. Mannakee. T. A. I. M. E., vol. 40, p. 655. 12 pages.

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NEW EXPERIMENTS ON COAL-DUST EXPLOSIONS AT LIEVIN. By E. Walch. E. & M. J., vol. 89, p. 381. 1½ columns.

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- ANALYSES OF THE CLINTON IRON-ORES, HUNTINGDON COUNTY, PENNSYLVANIA. T. A. I. M. E., vol. 40, p. 143. 2 pages. Tables.
- ANALYSES OF CLINTON OREOLYTIC IRON-ORE, NEW YORK STATE. T. A. I. M. E., vol. 40, p. 174. Table.

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COMPRESSED AIR IN MINING

General

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See also COMPRESSED AIR PUMPING.

See also CYANIDING GOLD, ETC, and COST OF POWER

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TWO-STAGE AIR-LIFT COMPRESSOR Min. Mag, vol 4, p. 141. 1 column. I.

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IMPROVEMENTS IN COMPRESSOR VALVES. E & M J., vol 88, p. 915. 2½ columns. I.

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Hydraulic Air Compression and Compressors

HYDRAULIC AIR COMPRESSOR. P. C. M. & M. Soc. S. A., vol. 8, p 132. ½ column

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CLAYS AND THEIR USES

General

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Brick and Clay Products

SAND-LIME BRICK INDUSTRY By S. V. Peppel. U. S. G. S., Mineral Resources, 1903. 23 pages.

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See also MINING DISTRICTS.

CONCENTRATION

General

CONCENTRATION METHODS EMPLOYED IN AUSTRALIA. T. Au. I. M. E., vol 12, p. 105. 26 pages Flow sheets.

ORE CONCENTRATION. P. C. M. & M. Soc. S. A., vol. 8, p 393. 2 columns.

ON DRESSING OF ORES. Min Mag, vol. 9, p. 56 4 pages; vol. 8, p. 535, 3 pages.

DEVELOPMENTS IN GOLD-EXTRACTING MACHINERY, AND SOME CAUSES OF FAILURE. By J. W. Jaffray. T. Au. I. M. E., vol. 4, p. 56. 38 pages.

SILVER AND THE PRESENT STATE OF ITS WINNING FROM ARGENTIFEROUS ORES. By A. Trippel Min. Mag., vol 4, p. 153, 17½ pages; p. 327, 12 pages.

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CALCULATION OF RECOVERY IN CONCENTRATION. By T. J. Hoover. E. & M. J., vol. 89, p. 1234 4 columns.

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CALCULATION OF PERCENTAGE OF RECOVERY. By T. J. Hoover. Min. Mag., London, vol 3, p. 119. 7½ columns. D.

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See also MANAGEMENT OF MINES.

WITTS' FRICTION PROCESS OF ORE-DRESSING P. C. M. & M. Soc. S. A., vol. 7, p 14 5 columns. I.

See also COST OF MILLING

Preparation of Coal

COAL-WASHING PLANT OF THE STAG CAÑON FUEL CO.'S OPERATIONS, NEW MEXICO. T. A. I. M. E., vol. 40, p 363. 8 pages. I.

COAL-TESTING IN THE UNITED STATES. P. C. M. & M. Soc. S. A., vol. 7, p. 193. 4 columns

See also TESTING PLANTS.

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A NEW SEPARATOR FOR THE REMOVAL OF SLATE FROM COAL. By W. S. Ayres. T. A. I. M. E., vol. 40, p. 648. 7 pages. I.

CLEANING COAL BY THE DRY PROCESS. M. & M., vol. 30, p. 335. 2 columns. I.

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THE BEAVER BROOK BREAKER. By T. M. Dodson. M. & M., vol. 30, p. 706. $6\frac{1}{2}$ columns. I.

THE TAYLOR CONCRETE BREAKER. By E. B. Wilson. M. & M., vol. 31, p. 272. $1\frac{1}{2}$ columns. I.

THE PECK SHAFT BREAKER. By E. B. Wilson. M. & M., vol. 31, p. 513. 6 pages. I.

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ORE TESTING AT SALT LAKE. By E. Gayforth. Min. & Sci. Press, vol. 96, p. 134. 4 columns. I.

THE CALIFORNIA ORE TESTING COMPANY. Equipment of Plant and Flow-sheet. Min. & Sci. Press, vol. 95, p. 273. 2 columns. I.

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NOTES ON MILLING. By W. Beaver. P. C. M. & M. Soc. S. A., vol. 6, p. 215, 5 columns; p. 253, $2\frac{1}{2}$ columns; p. 275, $2\frac{1}{2}$ columns; p. 315, 1 column; p. 341, 1 column; p. 365, 5 columns. I.

THEORY OF THE SETTLEMENT OF SLIME. P. C. M. & M. Soc. S. A., vol. 10, p. 149. 3 columns.

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FREE AND HINDERED SETTLING OF MINERAL GRAINS. By A. O. Christensen. E. & M. J., vol. 88, p. 503. 18 columns. I.

DEVELOPMENT OF HINDERED-SETTLING APPARATUS. By R. H. Richards. T. A. I. M. E., vol. 41, p. 396. 58 pages. I.

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SOLUTIONS OF HIGH SPECIFIC GRAVITY. P. C. M. & M. Soc. S. A., vol. 6, p. 278. Note.

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See also PIPES AND PIPE FITTINGS.

Jigs and Jigging

THE FIRST JIG USED IN CLEANING ANTHRACITE COAL. Coal Mining Supplement, E & M. J., vol. 88, p. 3. 1 column.

FIRST PRACTICAL APPLICATION OF THE FOUST JIG. By Doss Brittain. E & M. J., vol. 85, p. 1089. 5½ columns. I.

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MAGNET FOR REMOVING STEEL FROM ORE. E. & M. J., vol. 88, p. 1238, 1 column I.

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Flotation Processes

THE HISTORY OF THE FLOTATION PROCESS. Min. Mag., London, Vol. 1, p. 61. 8 columns. I.

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A FEW NOTES ON THE ELMORE VACUUM PROCESS OF ORE CONCENTRATION. By H. H. Claudet. J. C. M. I., vol. 11, p. 460. 2 pages

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NOTES ON VARIOUS APPLICATIONS OF THE ELMORE VACUUM PROCESS. By A. S. Elmore. E. & M. J., vol. 87, p. 1275. 5½ columns.

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THE IMPROVED MACQUISTEN TUBE Flotation Process By W. R. Ingalls. E. & M J, vol 86, p 23. $\frac{1}{2}$ column. I.

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NOTES ON MILL CONSTRUCTION, MILLING AND AMALGAMATION By I. Roskelley. P. C. M & M. Soc. S A., vol 5, p. 9, 9 columns, I; p. 49, 9 columns.

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Flow-Sheets

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FLOW-SHEET OF ASBESTOS TREATMENT IN QUEBEC J. C. M I., vol. 13, p. 413. I

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FLOW-SHEET OF THE BEAVER BROOK BREAKER M. & M., vol 30, p. 707. D.

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REVISED FLOW-SHEET OF UTAH COPPER MILL By C T. Rice E & M J., vol 90, p. 1264. 3 columns. I.

FLOW-SHEET OF THE OHIO CONCENTRATOR. Min. & Sci. Press, vol. 101, p. 303. Diagram.

FLOW-SHEET OF THE MIAMI MILL, ARIZONA. M. & M., vol 31, p. 2. I.

FLOW-SHEET OF THE MT. MORGAN, MINE. M. & M., vol 29, p. 4. I.

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FLOW-SHEET IN THE CŒUR D'ALENE DISTRICT: Typical. E. & M. J., vol. 89, p. 824. I.

FLOW-SHEET OF DOE RUN MILL, MISSOURI. E. & M. J., vol. 89, p. 611 I.

FLOW-SHEET OF GRAPHITE TREATMENT. M. & M., vol. 30, p. 394 3 columns. D.

See also OCCURRENCE OF GRAPHITE.

FLOW-SHEETS OF AMERICAN AND MEXICAN MILLS. E. & M. J., vol 88, p 864, 12 columns, I.; p. 966, 8 columns D.

Use of Plates in Amalgamation

NOTES ON THE SCALING AND SWEATING OF COPPER BATTERY PLATES By S. F. Goddard. T. I. M. & M., vol. 18, p. 495. 4 pages.

THE SILVER COATING OF AMALGAMATING PLATES P. C. M. & M Soc. S. A., vol 9, p. 142 2 columns. I.

THE SILVER COATING OF AMALGAMATING PLATES P. C. M. & M Soc. S. A., vol. 9, p. 222 $\frac{1}{2}$ column

SILVER COATING OF AMALGAMATING PLATES. By W. A. Caldecott Min. & Sci. Press, vol. 98, p. 92. 1 $\frac{1}{2}$ columns.

COPPER PLATE ABSORPTION. P. C. M. & M., Soc. S. A., vol. 9, p. 214. 1 $\frac{1}{2}$ columns.

THE USE OF ELECTRO-PLATED COPPER PLATES IN THE BATTERY. By F. W. Cindel. P. C. M. & M. Soc. S. A., vol. 5, p. 92, 6 columns; p. 175, 3 columns; p. 205, 1 $\frac{1}{2}$ columns; p. 316, $\frac{1}{2}$ column.

DRESSING PLATES AS AFFECTING AMALGAMATION E. & M. J., vol. 88, p. 556. 2 $\frac{1}{2}$ columns.

MONEL METAL. E. & M. J., vol. 86, p. 1256. $\frac{1}{2}$ column.

SCALING AND SWEATING OF COPPER BATTERY PLATES. By S. F. Goddard. Min. & Sci. Press, vol. 99, p. 368. 1 column.

THE AVERAGE RATE OF ACCUMULATION AND ABSORPTION OF GOLD AMALGAM BY COPPER PLATES By E. Halse T. I. M. & M., vol. 17, p. 486. 12 pages.

ABSORPTION OF GOLD AMALGAM BY COPPER PLATES. E. & M. J., vol. 86, p. 996. 1 $\frac{1}{2}$ columns.

THE ABSORPTION AND ACCUMULATION OF GOLD ON COPPER PLATES. By W. F. A. Thomas. T. I. M. & M., vol. 17, p. 482. 3 $\frac{1}{2}$ pages.

Pan Amalgamation

A NEW AMALGAMATING PAN Min. & Sci. Press, vol. 20, p. 209 3 columns. I.

PAN-AMALGAMATION EXPERIMENTS By H. O. Hofman and C. R. Hayward. Min. & Sci. Press, vol. 99, p. 529. $9\frac{1}{2}$ columns. I.

PAN-AMALGAMATION. An Instructive Laboratory Experiment By H. O. Hofman and C. R. Hayward. T. A. I. M. E., vol. 40, p. 382. 16 pages. I., Discussion, p. 864. 10 pages I.

Amalgamating Apparatus (Amalgamators)

THE PIERCE AMALGAMATOR. E & M J., vol. 85, p. 112. 1 column. I.

THE PIERCE AMALGAMATOR By J. H. Haynes. M & M., vol. 29, p. 524 3 columns. I.

AMALGAMATOR AT THE RUBY MILL, WARD, COLORADO Min. & Sci. Press, vol. 101, p. 875. 2 columns I.

A TAIL-BOX FOR AMALGAMATION. Amalgam Trap By H. S. Reed, Jr. E & M. J., vol. 89, p. 599. 2 columns I.

The Patio Process of Amalgamation

THE PATIO PROCESS. By C. P. Duarte. P. C. M. & M. Soc. S. A., vol. 9, p. 105. $9\frac{1}{2}$ columns

THE PATIO PROCESS. By F. MacCoy. E. & M. J., vol. 90, p. 958. $2\frac{1}{2}$ columns. I.

THE PATIO PROCESS AT THE GUADALUPE HACIENDA, PACHUCA, MEXICO. E. & M. J., vol. 86, p. 559. 5 columns. I.

THE PATIO PROCESS AT GUANAJUATO, MEXICO. E. & M. J., vol. 89, p. 961. 1 column.

See also COST OF MILLING.

Electrostatic Separation

ELECTROSTATIC SEPARATION By H. A. Wentworth Min. & Sci. Press, vol. 101, p. 567. $2\frac{1}{2}$ columns

THE BLAKE-MORSCHER ELECTROSTATIC SEPARATOR. M & M., vol. 30, p. 363. 2 columns. I.

ELECTROSTATIC SEPARATION OF MINERALS IN ORES. By H. A. Wentworth E & M. J., vol. 90, p. 15. $8\frac{3}{8}$ columns I

ELECTROSTATIC ZINC SEPARATION By L. A. Palmer M & M., vol. 30, p. 362. 9 columns I.

ELECTROLYTIC SEPARATION OF NICKEL AND COPPER. P. C. M. & M. Soc. S. A., vol. 9, p. 53. $\frac{1}{2}$ column.

See also COST OF MILLING.

Magnetic Separation

ELECTRO MAGNETIC SEPARATION By J. N. Judson. E & M J., vol. 88, p. 270. $3\frac{1}{4}$ columns.

ELECTRICITY AS A FACTOR IN ORE DRESSING. Magnetic Concentration. By W. B. Roberts. T. A. I. M. E., vol. 1, p. 131 4 pages I.

AN ELECTROMAGNET FOR TESTING THE SUITABILITY OF AN ORE FOR MAGNETIC SEPARATION. By L. H. L. Huddart E. & M. J., vol. 85, p. 1008. $1\frac{1}{2}$ columns. I.

AN ELECTRO-MAGNET FOR TESTING THE SUITABILITY OF AN ORE FOR MAGNETIC SEPARATION. By L. H. L. Huddart. T. I. M. & M., vol. 17, p. 435 5 pages. I.

THE MAGNETIC PROPERTIES OF IRON AND STEEL AT LIQUID AIR TEMPERATURES By C. C. Trowbridge. Sch. Mines Quart., vol. 24, p. 72. 12 columns. I.

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AN IMPROVED BLANKET TABLE. By T. White. T. Au. I. M. E., vol. 4, p. 36. 6 pages. I.

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PROCESS OF COAL WASHING. By S. Diescher. P. E. Soc. W. Pa., vol. 23, p. 199. 22 pages. I.

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THE OPERATION OF A COAL WASHERY IN COLORADO. By W. F. Murray. E. & M. J., vol. 86, p. 1248. 9 columns. I.

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Disposal of Waste

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- THE WILSON HYDRAULIC SEPARATOR.** P. C. M. & M. Soc. S. A., vol. 8, p. 176 2 columns. I.
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- SLIME TREATMENT** By A. M. Nichols. Min. & Sci. Press, vol. 95, p. 583. 1 column I
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- TREATMENT OF ORE SLIME.** By A. F. Crosse. P. C. M. & M Soc. S. A., vol. 10, p. 172. 4 columns. I.
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- STATIONARY AND MOVING SURFACES FOR SLIME CONCENTRATION.** T. I. M. & M., vol. 19, p. 401. 4 pages.
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MEASUREMENT OF PULP AND TAILING. By W J Sharwood. Min. Mag., London, vol. 1, p 226, 8 columns, I; p. 297, 16 columns, D.

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Sand Treatment

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THE HUNGARIAN DRY WASHER FOR TREATING DRY PLACERS. Min. & Sci Press, vol 97, p. 360. 1 column I.

DRY-PLACER MACHINES. By G. M. Peterson. Min & Sci Press, vol. 101, p. 639. $1\frac{1}{2}$ columns

DRY-WASHING FOR PLACER-GOLD IN SONORA, MEXICO. By J. V. Richards T. A. I. M E, vol 41, p 797. 6 pages. I.

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Salt Making

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SALT: Historically, Statistically, and Economically; New Improved American Salt Manufacture By R Thomassy. Min. Mag., vol 9, p. 438 3½ pages

HISTORY OF SALT MAKING By E. W. Parker. U S G S, 18th Ann Rept., pt 5. 24 pages. 1896-97

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SALT-MAKING PROCESSES IN THE UNITED STATES By T M. Chatard. U. S G S., 7th Ann Rept, pp. 491-535 1885-86 I.

SALT PRODUCTION WITH EXHAUST STEAM By N B. Beasley E & M J., vol 87, p 1150 1½ columns.

NOTES ON THE EVAPORATED SALT INDUSTRY OF KANSAS By C M. Young E & M J, vol 88, p. 558. 10½ columns. I.

THE ROCK SALT MINING INDUSTRY IN KANSAS. By S Ainsworth. E & M J, vol. 88, p 454. 7½ columns. I.

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ORE DRESSING IN THE UNITED STATES AND MEXICO. By H. A. Guess. E. & M J., vol 88, p 864, 12 columns, D; p 966, 11 columns, I, D.

PROGRESS AND PROBLEMS IN ORE DRESSING. By C. De Kalb. Min & Sci Press, vol 100, p. 54. 7 columns. I.

DESIGNING A THOUSAND-TON CONCENTRATING PLANT. By C. C. Christensen. Min. & Sci. Press, vol. 101, p. 806. 4½ columns. I.

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MIAMI CONCENTRATING MILL, ARIZONA By R. L. Herrick. M & M, vol. 31, p. 1. 5 columns I.

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LAKE SUPERIOR ORE-DRESSING PRACTICE. By L. S. Austin. Min. & Sci Press, vol. 96, p. 259. 3½ columns I.

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- DRESSING OF ORES AT THE YELTA COPPER MINE, SOUTH AUSTRALIA.** T. Au. I. M. E., vol. 11, p. 99. 4 pages.
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- DESCRIPTION OF ORE TREATMENT AT THE GIANT MINE, HARTLEY DISTRICT, RHODESIA** By R. C. H. Cooke. P. C. M. & M. Soc. S. A., vol. 9, p. 152 8½ columns. I.
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- COST OF CYANIDING SLIMES** J. C. & M Soc. S. A., vol. 2, p. 96 Tables.
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- COST OF CYANIDING SLIMES AT THE PALMAREJO MINE, MEXICO.** T. A. I. M E., vol. 36, p. 287. Table.
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- WORKING COST OF THE ROBINSON CYANIDE WORKS, THE RAND** Gold Mines of the Rand, p. 237 Table.
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- COST OF ELECTRIC LOCOMOTIVE HAULAGE AT THE 1870-FOOT LEVEL, SHAMROCK 1 AND 2 COLLIERIES, GERMANY.** E. & M. J., vol. 89, p. 1238. Table.

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- COST OF TRACK LAYING IN AN ENTRY OF GIVEN LENGTH.** M. & M., vol. 19, p. 474. Table.

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Cost of Hoisting

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- LABOR COST ON THE RAND. T. N. S. I. M. & M. E., vol. 10, p. 137.
- SCHEDULE OF PRICES OF LABOR PER SHIFT, THE RAND MINES. T. A. I. M. E., vol. 39, p. 429. Table
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- LABOR COSTS IN THE ALABAMA AND GEORGIA GOLDFIELDS. T. A. I. M. E., vol. 26, p. 472. Table.
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- LABOR COST AT BRILLIANT COAL MINES, ALABAMA (1906). T. A. I. M. E., vol. 37, p. 490. 1 page.
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- COST OF LABOR PER TON ORE AT THE GOLDEN HORSESHOE, WESTERN AUSTRALIA. Gold Min. & Mill., W. Aus., p. 616. Table.
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- LABOR COSTS IN A STAMP MILL IN IDAHO Ore Dressing, Richards, vol. 2, p. 112 Table.
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- LABOR COSTS IN THE MALAY PENINSULA TIN MINES Tin Deposits of the World, pp. 59 and 64. Table.
- LABOR COST IN TIN MINES OF SPAIN Tin Deposits of the World, p. 151 Table.
- LABOR COSTS IN DRESSING TIN ORES AT MOUNT BISCHOFF. Tin Deposits of the World, p. 172.
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- COST OF MINE LABOR, BUTTE, MONTANA. M. & M., vol. 21, p. 158. Table.
- COST OF MINE LABOR, ROSSLAND, BRITISH COLUMBIA M. & M., vol. 21, p. 367. Table.
- COST OF HAULAGE SYSTEM EMPLOYED AT THE COTTONWOOD MINE, MONTANA. M. & M., vol. 19, p. 276. Table.
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Cost of Lighting

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- COSTS AND PROFITS ON THE WITWATERSRAND. By J. R Finlay E. & M. J., vol. 86, p. 565. 7 $\frac{1}{2}$ columns.
- WORKING COSTS IN THE BARBERTON GOLDFIELD, SOUTH AFRICA. P C. M. & M. Soc. S. A., vol. 10, p. 132. 1 column. Tables.
- WORKING COSTS ON THE WITWATERSRAND E. & M. J., vol. 88, p 593. 3 columns.
- WORKING COSTS IN MINES, AS PRACTICED ON THE RAND. By J A.

- Dennison. Min. & Sci. Press, vol. 97, p. 192. $3\frac{1}{2}$ columns.
- COST OF MINING OPERATIONS IN SOUTH AFRICA. Min & Sci. Press, vol. 94, p. 311.
- COST OF WORKING GOLD MINES IN RHODESIA, SOUTH AFRICA. T. I. M. E., vol. 31, pp. 67, 76, 80, 86 and 96. Tables.
- WORKING COST OF SOME RAND MINES. P. C. & M. Soc. S. A., vol. 2, p. 149. $1\frac{1}{2}$ pages.
- COST OF WORKING A WIDE GOLD REEF IN RHODESIA, SOUTH AFRICA. T. I. M. & M., vol. 12, pp. 293, 300. Tables.
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- GENERAL MINING COSTS ON THE WITWATERSRAND. T. I. M. & M., vol. 7, p. 6. Table
- COST OF WORKING BLANKET DEPOSITS, WEST AFRICA. T. F. I. M. E., vol. 2, p. 81
- WORKING COSTS AT THE FERREIRA GOLD MINING COMPANY, 1897. Witwatersrand Goldfields, p. 482. 4 pages.
- PROFITS IN MINING, WITWATERSRAND E. & M. J., vol. 81, p. 670. Table
- AFRICAN MINING COSTS Min. & Sci. Press, vol. 74, p. 344. Table
- COST OF MINING ON THE WITWATERSRAND. E. & M. J., vol. 76, p. 1005.
- THE COST AND PROFITS OF GOLD MINING IN SOUTH AFRICA. E. & M. J., vol. 64, p. 422. $1\frac{1}{2}$ columns
- COST OF MINING IN RHODESIA Min & Sci. Press, vol. 90, p. 106. Tables.
- COST OF MINING OPERATIONS IN RHODESIA. Pumping, Winding, Trammig, Compressor and Drills, Sharpening Drills, Sortang and Crushing, Surveying and Sampling. Min. & Sci. Press, vol. 90, pp. 119, 155. Tables.
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- See also COST OF VARIOUS OPERATIONS MENTIONED
- COST OF MINING AND MILLING FREE GOLD ORES. E. & M. J., vol. 42, p. 168. 3 columns.
- See also COST OF MILLING.
- COST OF MINING IN TRANSVAAL. E. & M. J., Mar. 23, 1905, p. 565. 1 column.
- COST OF MINING IN THE TRANSVAAL. Min. Mag., vol. 11, p. 451. Table.
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- COST OF MINING OPERATIONS AT ALASKA TREADWELL GOLD MINES. E. & M. J., vol. 81, p. 1251.
- WORKING COST AT THE MITCHELL'S CREEK GOLD MINES, NEW SOUTH WALES. T. I. M. & M., vol. 15, pp. 538, 539
- COST OF MINING IN WESTERN AUSTRALIA. Gold Min. & Mill., W. Aus., pp. 195, 197, 205, 206, 207, 208, 209, 212. Tables
- COST (GENERAL) OF MINES IN WESTERN AUSTRALIA. Gold Min. & Mill., W. Aus., p. 473. 4 pages
- COST OF MINING OPERATIONS IN KALGOORLIE DISTRICT, AUSTRALIA. T. I. M. E., vol. 17, p. 363.
- COST OF MINING AND MILLING AT THE GREATEST AUSTRALIAN GOLD MINE. E. & M. J., vol. 42, p. 236. $\frac{2}{3}$ column
- COST OF MINING IN WESTERN AUSTRALIA. Min. & Sci. Press, vol. 93, p. 687. Table.
- CHEAP MINING IN AUSTRALIA. Min. & Sci. Press, vol. 78, p. 206. $\frac{1}{2}$ column.

- WESTERN AUSTRALIAN GOLD MINING COSTS. Min. & Sci Press, vol. 93, p 686. 5 columns.
- COST OF OPERATIONS AT MOUNT MORGAN MINE Min & Sci. Press, vol. 88, p. 182 Table.
- COSTS OF MINING GOLD ORE AT SARAWAK, BORNEO. T. I. M. & M, vol. 15, pp. 154, 155, 194.
- MINING COSTS IN THE COBALT DISTRICT, CANADA T. I. M. E., vol. 36, p. 591. 1½ pages. Tables.
- COST OF MINING, HANDLING, ETC., THE LE ROI MINING COMPANY: Tamarack Mining Company. E & M. J., vol. 75, pp 526, 527.
- MINING COST PER TON AT LE ROI, BRITISH COLUMBIA. E. & M. J, vol. 88, p. 104. 1½ columns. Table.
- COST OF MINING OPERATIONS IN THE WAR EAGLE AND CENTER STAR MINES, BRITISH COLUMBIA. M. & M., vol. 21, p. 367. Table.
- MINING COST, WAR EAGLE MINE, BRITISH COLUMBIA Min. & Sci. Press, vol. 90, p 268. ¾ column. Tables
- OPERATING EXPENSES AT THE CARIBOO MINE, BRITISH COLUMBIA. Min & Sci. Press, vol. 88, p. 148. Table
- WORKING COSTS, ROSSLAND, BRITISH COLUMBIA: Shaft Sinking, Rising, Drifting, and Extraction. M. & M, vol. 21, p 367. Table.
- See also COST OF THE VARIOUS OPERATIONS MENTIONED.
- COST OF MINING OPERATIONS OF WAR EAGLE MINE, BRITISH COLUMBIA. Min. & Sci. Press, vol. 80, p 262. Tables.
- COST OF MINING OPERATIONS AT CENTRE STAR MINE, ROSSLAND, BRITISH COLUMBIA. Min. & Sci. Press, vol. 87, p. 397. Table.
- COST OF MINING AT THE YELLOW ASTER MINE, MOJAVE DESERT. E. & M. J., vol. 77, p. 154. Table.
- COSTS OF MINING OPERATIONS AT THE PORTLAND MINE, COLORADO. E. & M. J., vol. 82, p. 774.
- COSTS OF MINING OPERATIONS AT THE PORTLAND MINE, COLORADO. T. A. I. M. E., vol. 37, p. 110. Tables.
- COST OF MINING OPERATIONS, CRIPPLE CREEK, COLORADO. Min. & Sci. Press, vol 88, p. 112. Table
- MINING COSTS AT CRIPPLE CREEK COLORADO. E & M. J., vol 76, p 766. 3 columns.
- MINING COSTS AT CRIPPLE CREEK, COLORADO. E. & M J, vol 77, p. 70. 1½ columns.
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- AVERAGE WORKING COSTS PER TON OF ORE TREATED AT THE MAITLAND MILL, SOUTH DAKOTA (CYANIDE PLANT). T. A. I. M. E., vol 35, p. 635
- COST OF OPERATIONS AT THE REYNOLDS MINE, GEORGIA. T I M. & M., vol. 9, p. 371. Table.
- COST OF MINING IN KOREA Min. & Sci. Press, vol 93, p. 80. Table.
- COST OF MINING OPERATIONS IN THE CATORCE DISTRICT, MEXICO. E. & M. J., vol. 48, pp 476, 477.
- COSTS AT THE ESPERANZA MINE By W. E Hindry. Min. & Sci. Press, vol 100, p. 518. 2½ columns. Tables.
- MINING COSTS AT EL COBRE E. & M. J, vol. 86, p. 415. Tables.
- WORKING COST AT GUANAJUATO. E. & M. J., vol. 90, p. 723. 1 column.
- GENERAL OPERATING COSTS AT EL ORO AND DOS ESTRELLAS Min. & Sci. Press, vol. 96, p 198. Table.
- CHEAP MINING IN MONTANA. E & M J., vol. 55, p 364. ½ column.
- FORMER COST OF COMSTOCK MINING, COST OF SUPPLIES, ETC. Min. & Sci Press, vol. 77, p. 326. 1 column.
- COST OF MINING AT PIOCHE, NEVADA. Sch. Mines Quart., vol. 27, p. 383. Table.

- THE COST OF THE GOLDFIELD MINING BOOM. By A. Locke. Min. & Sci. Press, vol. 101, p. 541. 5 columns I.
- COSTS OF MINING IN NICARAGUA Min. Mag, vol. 11, p 512 Table
- COST OF MINING OPERATIONS IN EASTERN OREGON Wages, Stoping, Drifting, Raising, and Timbering M. & M., vol 19, p 15
- See also COST OF THE VARIOUS OPERATIONS MENTIONED.
- COST OF MINING IN UTAH Min & Sci. Press, vol 40, p. 86. $\frac{1}{2}$ column
- GENERAL MINING COSTS AT THE SOUTH UTAH MINE. M & M, vol. 31, p 595. $\frac{1}{2}$ column.
- COST OF MINING AT THE STORMONT AND LAST CHANCE MINES E & M. J., vol 29, p 60 Table
- COST OF MINE WORK PER LINEAR FOOT, GRANITE MOUNTAIN MINING COMPANY. E & M J, vol. 44, p. 432. Table.
- COST OF MINING QUARTZ PYRITE GOLD DEPOSITS. By J. R. Finlay E & M. J., vol. 86, p. 512. 18 $\frac{1}{2}$ columns.
- COST AND PRICE OF MICHIGAN IRON ORE: Presidential Address T. L. S. M. I., vol. 6, p. 13 10 pages
- SELLING PRICE OF NORTHERN IRON ORES FOR SEASON'S DELIVERY—1899. M. & M., vol. 20, p 100
- COST PER TON OF MESABI IRON ORE. Min. & Sci. Press, vol. 67, p 356. Table.
- COST OF MINING OPERATIONS IN THE NEW YORK HEMATITE MINES E. & M. J., vol. 82, p. 555. $\frac{1}{2}$ column.
- COST OF MINING OPERATIONS AND TRANSPORTATION, ETC., OF LAKE SUPERIOR IRON-ORES. T F. I. M. E., vol. 13, p 545. Table.
- See also COST OF TRANSPORTATION.
- COST OF OPERATIONS AT PYRITES MINES. Sch Mines Quart., vol. 7, pp 169 and 166
- COST OF MINING IN SWEDEN. Min. & Sci. Press, vol. 45, p. 358. 1 $\frac{1}{2}$ columns.
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- MINING COSTS IN THE JOPLIN DISTRICT. By Doss Brittain. Min. & Sci Press, vol 96, p 526. 1 $\frac{1}{2}$ columns.
- COST OF MINING IN THE LEAD AND ZINC MINES OF MISSOURI M & M, vol 18, pp 394, 481, 482 and 483, vol. 19, p 104.
- OPERATING COSTS IN CŒUR D'ALENE MINES, IDAHO Min & Sci. Press, vol. 89, p 222. Tables.
- COST OF MINING ORE AT BUNKER HILL AND SULLIVAN MINE, IDAHO. Min & Sci Press, vol. 97, p 29 Table
- COST OF MINING, HAND-PICKING AND ORE DRESSING IN LEAD MINES, SPAIN. E & M J, vol 73, p. 69.
- See also COST OF SORTING, and CONCENTRATION.
- GENERAL MINING COSTS IN THE NITRATE OF SODA MINES, CHILE. Min. & Sci Press, vol 100, p. 182 $\frac{1}{2}$ column.
- MINING COST IN THE CHILE NITER MINES E. & M J, vol 90, p 19 $\frac{1}{2}$ column.
- COST OF MINING OPERATIONS IN THE ANCHOR TIN MINE, TASMANIA E. & M. J., vol. 81, p 1240. Table.
- COSTS OF MINING OPERATIONS AT MOUNT BISCHOFF TIN MINES Tin Deposits of the World, p. 172. Table.
- COSTS AT THE ANCHOR TIN MINE, TASMANIA. E & M. J., vol. 81, p. 1249. 2 $\frac{1}{2}$ columns.
- COST OF OPERATIONS AT MOUNT BISCHOFF TIN MINES, TASMANIA. T. I. M. & M., vol. 14, p. 227. Tables.
- MINING COSTS IN THE CAPE COLONY TIN WORKINGS P. C. M. & M. Soc. S A., vol. 8, p. 180. Tables.

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Cost of Mining and Treatment

COST OF MINING AND MILLING Min. & Sci. Press, vol. 73, p. 523. $1\frac{1}{2}$ columns.

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- COMPARATIVE COSTS OF MINING TREATMENT, ETC., FOR YEARS 1893-1903: Mount Morgan Gold Mining Company. E & M J., vol 76, p p. 435. Table.
- RELATIVE COST OF MINING AND MILLING IN CALIFORNIA Min. & Sci. Press, vol. 73, p 295. Table.
- CHEAP CALIFORNIA MINING AND MILLING. Min & Sci. Press, vol. 76, p. 225.
- MINE AND MILL COST: Standard Consolidated Mining Company, California E. & M J., vol. 76, p. 397. Tables.
- COST OF MINING AND MILLING IN NORTHERN CALIFORNIA. Min & Sci. Press, vol. 93, p 286. Table.
- COST OF MINING AND MILLING IN MOJAVE DESERT, CALIFORNIA Min & Sci. Press, vol. 87, p 405. Table
- COST OF MINING AND MILLING THE MARMORA, ONTARIO, GOLD ORES. E & M J., vol. 30, p 298 1 column
- COST OF MINING AND MILLING IN NOVA SCOTIA, ALSO LABOR COSTS Min. & Sci. Press, vol. 91, p. 290.
- COST OF MINING AND MILLING GOLD-ORES IN NOVA SCOTIA. By W. I. Pierce. T. A. I. M. E., vol. 13, p. 659
- COSTS OF MINING AND MILLING IN NOVA SCOTIA. Min & Sci. Press, vol 91, p. 290.
- COST OF MINING AND MILLING GOLD ORES IN SAN JUAN DISTRICT, COLORADO. E & M J., vol. 73, p. 696. $\frac{1}{2}$ column.
- MINING AND MILLING COSTS IN THE MONTEZUMA DISTRICT, COLORADO. M. & M., vol. 28, p. 503. $\frac{1}{2}$ column.
- CHEAP MINING AND MILLING IN SOUTH DAKOTA By E. J. Kennedy. Min. & Sci. Press, vol. 93, p. 545. $\frac{1}{2}$ column.
- COST OF MINING AND MILLING TELLURIDE ORES IN THE BLACK HILLS. Min & Sci. Press, vol. 87, p. 290. Table.
- COST OF MINING AND MILLING OF GOLD IN KOREA. T. I. M. & M., vol 12, p 242
- COST OF MINING AND MILLING, SUMMIT VALLEY DISTRICT, MONTANA. Min. & Sci Press, vol 41, p 98.
- COST OF MINING AND MILLING, BIG INDIAN MINE. Min & Sci Press, vol 87, p 237 Table.
- COST OF MINING AND MILLING AT THE CACTUS MINE, BEAVER COUNTY, UTAH. E & M J., vol. 81, p 813
- COST OF MINING AND TREATMENT AT THE HAILE MINE, VIRGINIA E & M. J., vol 62, p 7. Table.
- COSTS OF MINING AND MILLING AT SANTA FE T. I. M. & M., vol 12, p. 95. Tables.
- CHEAP MINING AND MILLING AT THE SPANISH MINE Min. & Sci Press, vol 80, p. 318 $2\frac{1}{2}$ columns Tables.
- COST OF MINING AND TREATMENT, CŒUR D'ALENE, IDAHO Min & Sci Press, vol. 91, pp 78, 79. Tables
- COST OF LEAD MINING AND SMELTING IN SPAIN E. & M J., vol. 86, p. 329. $1\frac{1}{2}$ columns
- COST OF MINING AND TREATING LEAD-ORES IN MEXICO. T. A. I. M. E., vol. 13, p. 366
- COST OF MINING AND CLEANING THE ORE IN JOPLIN DISTRICT E & M. J., vol 58, p. 392, $\frac{1}{2}$ column; p 413, $1\frac{1}{2}$ columns; p. 437, 2 columns; and p. 460, $1\frac{1}{2}$ columns.
- COST OF MINING AND MILLING BLUE ROCK PHOSPHATE IN TENNESSEE. E. & M. J., vol. 80, p 206.
- COST OF MINING AND CONCENTRATING IN THE ZEEHAN AND DUNDAS SILVER FIELD. T. I. M. & M., vol. 4, p 63.
- See also COST OF MINING, COST OF MILLING, and CONCENTRATION.

Cost of Coal Mining

AN INVESTIGATION OF THE COST OF MINING COAL. By J. R. Finlay. E. & M. J., vol. 87, p. 948. $10\frac{1}{2}$ columns.

- DETAILED COSTS OF MINING COAL Second Geol. Sur. Pa., AC, pp 359, 360, 362, 363-367.
- THE COST OF MINING COAL E. & M. J., vol. 87, p. 1099. 6½ columns.
- ECONOMY IN THE PRODUCTION OF COAL. Am. Jour. Min., vol. 2, p. 44. ½ column
- COST IN NARROW AND GOB ENTRY METHODS OF WORKING M. & M., vol. 19, p. 59. Table.
- SOME ITEMS OF COST OF COAL MINING. E. & M. J., vol. 25, p. 252. ¾ column.
- COMPARATIVE COST OF LONGWALL AND PILLAR AND STALL METHODS. Coll Engr., vol 9, p 122. Tables.
- COST OF WORKING BY ROOM AND PILLAR SYSTEM WITHOUT GOBBING-UP. T. A I M. E., vol. 2, p 110.
- COST OF COAL MINING. E. & M. J., vol 54, p 241. ¾ column
- EXPENSE OF KEEPING A LARGE COLLIERY IN WORKING ORDER E. & M. J., vol. 73, p. 753.
- PRICE AND PRODUCTION OF COAL E. & M. J., vol. 74, p 672. 1½ columns
- COMPARATIVE COSTS OF THE PILLAR-AND-CHAMBER, PILLAR-AND-CHAMBER RETREATING, AND PANEL SYSTEM RETREATING. M. & M., vol. 27, p 534 Tables
- COMPARATIVE COST OF WORKING AN 18-IN. COAL-SEAM: When Bottom-Cutting Is Used as Gobbing; and Bottom Cutting Is Used as Brick Material. T. I. M. E., vol. 15, p. 61. Table.
- COST OF GETTING COAL. E & M. J., vol. 87, p. 1044. 1 column.
- COST OF USE OF HYDRAULIC MINING CARTRIDGES. T. I. M. E., vol. 15, p. 272. Table.
- COMPARATIVE COSTS OF HYDRAULIC COAL GETTERS AND EXPLOSIVES. M. & M., vol. 27, p. 247. Tables.
- SEE also MECHANICAL MINING APPLIANCES: GETTERS.
- COST OF COAL GETTING E & M J., vol 48, p. 139. Tables
- COST OF MACHINE MINING OF COAL. M. & M., vol. 17, p 315. Table.
- COST OF REPAIRS FOR MACHINE MINING IN VIRGINIA COAL MINES. E. & M. J., vol. 84, p. 408.
- COST OF INSTALLATION AND MINING COAL BY MACHINES. By F. W. Parsons. E. & M J., vol. 82, p. 304. 2 columns.
- COST OF MACHINE-MINING AND PICK-MINING COMPARED T. I. M. E., vol 17, pp. 174, 175, 176
- COSTS OF MACHINE MINING OF COAL. E. & M J., vol. 89, p. 624. 1½ columns
- COST OF MACHINE MINING OF COAL. T. I. M. E., vol. 31, pp. 388, 417, 429.
- COST OF MINING COAL BY MACHINES. Sch. Mines Quart., vol. 9, p. 313. Tables.
- COSTS OF COAL-CUTTING BY MACHINERY. T. F. I. M. E., vol. 11, pp 199, 200.
- COST OF CUTTING COAL BY MACHINE VS. HAND. T. F. I. M. E., vol 1, p. 126, Table; p. 132, Table; p 138, Table.
- ELECTRIC MINING MACHINERY: Some Investigations in Regard to Cost of Operation in Various Mines. By J. N. Bulkley. M. & M., vol. 18, p. 170. 8 columns.
- COST OF ELECTRIC VS. COMPRESSED AIR WORK IN COAL-CUTTING. T. F. I. M. E, vol. 11, pp. 499 and 500. Tables.
- COST OF OPERATING ELECTRIC COAL MINING MACHINES. P. E. Soc. W. Pa., vol. 13, p. 165. Table.
- COST OF ELECTRIC COAL-CUTTING AT THE GLENCLELLAND COLLIERY. T. F. I. M. E., vol. 9, p. 136. Table.
- See also ELECTRIC COAL MINING MACHINES.
- COST OF MINING COAL, RED BANK REGION, PENNSYLVANIA. E. & M. J., vol. 18, p. 51. 1 column.

- COST OF MINING COAL IN THE PENNSYLVANIA COAL MINES. Rept Insp. Mines, Pa., 1879, pp. 321 and 323 Tables
- COST OF MINING AT DANVILLE, PENNSYLVANIA. T. A. I. M. E., vol 20, p 384
- COST OF MINING IN SOME PENNSYLVANIA ANTHRACITE COLLIERIES. E. & M. J., vol. 45, p. 193. 1½ columns.
- ESTIMATED COST OF ANTHRACITE MINING BY WITHDRAWING. E. & M. J., vol. 48, p. 380. Table
- COST OF ANTHRACITE COAL MINING PER CAR, OR WHEAT THE MINER GETS. E. & M. J., vol. 73, pp 754 and 887.
- COST OF ANTHRACITE MINER'S OUTFIT. The Anthracite Coal Industry, Roberts, p. 112. Table.
- INCIDENTAL WORKING EXPENSES OF ANTHRACITE MINER. The Anthracite Coal Industry, Roberts, p 113. Table.
- COST OF MINING IN THE WYOMING REGION. E. & M. J., vol 17, p 37 2 columns.
- THE COST OF ANTHRACITE COAL. Coll Engr., vol. 13, p. 126. 2 columns.
- COST OF PRODUCING A TON OF ANTHRACITE COAL. The Anthracite Coal Industry, Roberts, pp. 45 and 57. 10 pages. I
- THE COST OF ANTHRACITE COAL E. & M. J., vol. 80, p. 595. 2 columns.
- PRICE PAID THE MINERS FOR CHAMBER WORK IN ANTHRACITE COAL MINES OF PENNSYLVANIA The Anthracite Coal Industry, Roberts, p. 28.
- See also MINER'S WAGES
- THE COST OF MINING ANTHRACITE. E. & M. J., vol. 79, p. 793. 1½ columns.
- COST OF RECOVERY OF ANTHRACITE FROM CULM BANKS. E. & M. J., vol. 85, p 720. 2 columns.
- THE COST OF COAL AND IRON IN ALABAMA E. & M. J., vol. 57, p. 74. 1½ columns.
- COST OF MINING COAL IN THE CROW'S NEST PASS, CANADA, FOR WIDE AND NARROW WORK, ALSO COST OF HOISTING AND SCREENING. E. & M. J., vol 73, p 758 ½ column.
- COST OF COAL-MINING IN CHILE, SOUTH AMERICA T. I. M. E., vol. 15, p. 242. Table
- COST OF MINING IN THE KAIPING COAL MINES, CHINA. T. I. M. & M., vol 10, p. 425.
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- GOLD AND SILVER MINING IN NEW ZEALAND. By W. Wilson. Min. & Sci. Press, vol. 100, p. 520. 4 columns. I.
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- THE CLINTON IRON-ORE DEPOSITS IN NEW YORK STATE. By D. H. New-
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- THE SHALE AND CLAY DEPOSITS OF NOVA SCOTIA AND PORTIONS OF NEW BRUNSWICK. By H. Ries. J. C. M. I., vol. 13, p. 336. 20½ pages. I.
- THE CLAY AND SHALE DEPOSITS OF NOVA SCOTIA. By H. Ries. J. M. Soc. N. S., vol. 15, p. 9. 18½ pages.
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MINE DRAINAGE

Drainage in General

CURRENT PUMPS FOR MINING. By F. Reed. M. & M., vol. 30, p. 653. 3½ columns. I.

DIVERTING WATER IN A WET SHAFT. By A. D. Cox. M. & M., vol. 30, p. 415. ½ column. I.

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See also **SHAFT SINKING.**

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DRAINAGE IN THE JOPLIN REGION, MISSOURI: Shadow streams, etc. T. A. I. M. E., vol. 38, p. 327. 2 pages.

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See also **USE OF BORE HOLES.**

NEW METHOD OF EXTRACTING OIL FROM BOREHOLES. By F. A. Talbot. E. & M. J., vol. 87, p. 1001. 6 columns. I.

LEINWEBER METHOD OF EXTRACTING OIL FROM WELLS. By F. A. Talbot. E. & M. J., vol. 89, p. 1270. 4 columns. I.

DETERMINING HEIGHT OF WATER IN INACCESSIBLE OPEN PIT. By B. H. Case. E. & M. J., vol. 85, p. 301. 1½ columns. I.

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Theory of Pumping

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Pumps for Mine Use

REVIEW OF PAST AND PRESENT STEAM PUMPING AT MINES. By J. Tipping. T. Au. I. M. E., vol. 2, p. 31. 19½ pages.

METHODS OF PUMPING DEEP GROUND WATERS. By C. B. Burdick. J. W. Soc. E., vol. 12, p. 719. 37 pages. I.

THE PUMPING PROBLEMS AT THE TOMBSTONE MINE. By W. F. Staunton. E. & M. J., vol. 89, p. 174. 3½ columns.

PUMPING AT BISBEE, ARIZONA. By C. C. Austin. M. & M., vol. 31, p. 132. 4 columns. I.

PUMP STATION AT LEONARD MINE, BUTTE. E. & M. J., vol. 90, p. 400. 2½ columns. I.

THE OLD DOMINION PUMPING SYSTEM. By R. L. Herrick. M. & M., vol. 31, p. 324. 6 columns. I.

DEEP PUMPING ON THE COMSTOCK. M. & M., vol. 30, p. 761. 5½ columns. I.

PUMPING PLANT AT THE WARD SHAFT, VIRGINIA CITY, NEVADA. E. & M. J., vol. 89, p. 575. 1½ columns. I.

PUMPING PLANT AT THE TOMBSTONE CONSOLIDATED. By E. W. Walker. E. & M. J., vol. 88, p. 160. 5½ columns. I.

AN URGENT PUMPING PROBLEM AND HOW IT WAS SOLVED. By J. A. Seager. E. & M. J., vol. 88, p. 509. 2½ columns. I.

THE EMERSON STEAM PUMP. E. & M. J., vol. 85, p. 555. 1½ columns. I.

LOWERING A LARGE PUMP INTO A MINE. By G. J. Young. E. & M. J., vol. 87, p. 806. 2½ columns. I.

THE SINKING PUMP AND ITS TROUBLES. By M. T. Hoster. E. & M. J., vol. 89, p. 601. 2½ columns. I.

See also **SHAFT SINKING**

See also **COST OF PUMPING AND BAILING.**

Water Rings for Mine Shafts

WATER RINGS IN THE FILBERT SHAFT, PENNSYLVANIA. M. & M., vol. 30, p. 560. ¾ column. I.

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Rotary Pumps

CENTRIFUGAL PUMPS. By W. R. Wiley. J. W. Soc. E., vol. 15, p. 228. 36 pages. I.

KINEMATICS OF ONE FORM OF ROTARY PUMP OR BLOWER. By S. W. Balch. Sch. Mines Quart., vol. 30, p. 21. 6 pages. I.

THE DESIGN OF CENTRIFUGAL PUMPS. By J. A. Seager. E. & M. J., vol. 90, p. 1216. 6 columns. I.

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MOTOR DRIVEN CENTRIFUGAL PUMP FOR MINE USE. By C. Robinson. E. & M. J., vol. 87, p. 404. 3½ columns. D.

MINE PUMPING WITH DIRECT CONNECTED ELECTRICALLY DRIVEN TURBINE PUMPS. By P. H. Moore. J. M. Soc. N. S., vol. 12, p. 1. 8½ pages.

See also **ELECTRICITY IN THE MINE.**

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Cornish Pumps

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CORNISH PUMPS AND PUMPING ENGINES. By H. F. Collins. Min. & Sci. Press, vol. 98, p. 289, $3\frac{1}{2}$ columns; p. 317, $4\frac{1}{2}$ columns. D.

COMPOUND CORNISH PUMPING ENGINES. By W. P. Gauvain Min. & Sci. Press, vol. 99, p. 62. $5\frac{1}{2}$ columns. Diagrams.

See also COST OF PUMPING AND BAILING.

Hand Pumps and Water Portage

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Hydraulic Pumps

THE KOERTING WATER-JET EDUCTOR. E. & M. J., vol. 85, p. 1251. $\frac{1}{2}$ column. I.

INJECTOR OF HYDRAULIC SYSTEM USED IN THE C. AND C. SHAFT, COMSTOCK LODGE. M. & M., vol. 29, p. 154. I.

See also HYDRAULIC MINING.

Siphons in Mines

THE SIPHON IN MINING. By J. T. Beard. M. & M., vol. 31, p. 427. $4\frac{1}{2}$ columns. I.

PUMPING AND SIPHONING HOT WATER. By J. T. Beard. M. & M., vol. 31, p. 663. 3 columns. I.

Compressed Air Pumping

THE AIR-LIFT PUMP. J. W. Soc. E., vol. 12, p. 751. 2 pages. I.

AIR-LIFT PUMP EMPLOYED IN UNWATERING MINE AFTER MINE FIRE. E. & M. J., vol. 85, p. 640. 4 columns. I.

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AIR LIFT PUMPING. By E. A. Rix. Min. & Sci. Press, vol. 101, p. 505. 4 columns. Tables.

EFFICIENCY OF THE AIR LIFT AS A SOLUTION PUMP. By L. M. Green. E. & M. J., vol. 88, p. 251. $13\frac{1}{2}$ columns. I.

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UNWATERING SHAFT BY COMPRESSED AIR. By L. Boudoire. E. & M. J., vol. 90, p. 848. $1\frac{1}{2}$ columns. I.

See also SHAFT SINKING.

ELECTRIC REHEATER FOR AIR-DRIVEN PUMPS. E. & M. J., vol. 89, p. 1216. 1 column. I.

See also COMPRESSED AIR IN MINING.

Vacuum Pumps

THE VACUUM-PUMP IN THE CYANIDING OF SAND. By W. A. Caldecott. Min. & Sci. Press, vol. 98, p. 316. $1\frac{1}{2}$ columns.

THE USE OF THE VACUUM PUMP IN THE CYANIDING OF SAND. P. C. M. & M. Soc. S. A., vol. 9, p. 240. 2 columns.

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ELECTRICALLY DRIVEN MINE PUMPS. By S. F. Walker. E. & M. J., vol. 87, p. 422. 4 columns.

ELECTRICAL MINE-PUMPS IN EUROPE. By A. S. Atkinson. Min. & Sci. Press, vol. 99, p. 334. 4 columns.

EXPERIMENTS WITH TWO ELECTRICALLY-DRIVEN PUMPS. By T. L. Galloway. T. I. M. E., vol. 36, p. 82. 11 pages.

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BAILING WATER AT COLEMAN SHAFT. By F. G. Brackett M & M, vol. 31, p. 631. 3 columns I.

WATER TANK AND COUNTERWEIGHT USED AT THE ROOSEVELT TUNNEL. M & M, vol. 29, p. 391. $\frac{1}{2}$ column. I

HOISTING MINE WATER. E & M. J., vol. 87, p. 1281. $3\frac{1}{2}$ columns.

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Unwatering Shafts

UNWATERING THE MEXIAMORA MINE AT GUANAJUATO. By F. H. Clark. E. & M. J., vol. 89, p. 271. $4\frac{1}{2}$ columns. I.

UNWATERING FLOODED MINES. By D. Lamont. E. & M. J., vol. 90, p. 639 3 columns

RECLAIMING FLOODED DRIFT MINES IN ALASKA. By W. H. Lanagan. Min. & Sci. Press, vol. 100, p. 892. $6\frac{1}{2}$ columns. I.

Drainage Tunnels

COMSTOCK DRAINAGE PROBLEMS. By L. M. Hall. Min. & Sci. Press, vol. 99, p. 27. $5\frac{1}{2}$ columns. I.

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THE ROOSEVELT DEEP DRAINAGE TUNNEL, COLORADO. By R. M. Bagg. E. & M. J., vol. 88, p. 1061. 5 columns. I.

THE LOS ANGELES AQUEDUCT TUNNEL WORK. Min. & Sci. Press, vol. 100, p. 681. $3\frac{1}{2}$ columns. I.

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DITCHES: Method of Calculating Sections and Construction for Mining Work. By D. Waterman. Min. & Sci. Press, vol. 98, p. 352. 8 columns. I. Diagrams.

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HISTORY OF THE ROCK DRILL. By W. L. Saunders. Min. & Sci. Press, vol. 100, p. 735. 2 columns.

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HISTORY OF THE WATER LEYNER DRILL. By C. A. Hirschberg. M. & M., vol. 31, p. 148. 2 columns.

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HAND CHURN DRILLING. By O. H. Packer. Min. & Sci. Press, vol. 99, p. 296. 1½ columns.

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DRIFTING WITH A STOPING DRILL. By H. E. Moon. M. & M., vol 31, p. 697. $\frac{1}{2}$ column I.

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DRILLS FOR STOPING By A. Del Mar. Min. & Sci. Press, vol. 96, p. 169. 2 columns

METHOD OF DRILLING AND ORDER OF BLASTING THE ROOSEVELT TUNNEL, COLORADO. E. & M. J., vol. 88, p. 1062. D.

FAILURE OF STOPE DRILLS ON THE RAND. E. & M. J., vol 85, p. 110. $1\frac{1}{2}$ columns.

DUST COLLECTOR FOR ROCK DRILLS. E. & M. J., vol. 85, p. 957. $\frac{1}{2}$ column.

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Air-Hammer Drills

REQUISITES FOR AIR-HAMMER DRILL BITS. By G. E. Walcott. Min. & Sci. Press, vol. 101, p. 674. $1\frac{1}{2}$ columns. I.

THE MERITS AND DEMERITS OF AIR-HAMMER DRILLS. By G. E. Walcott. E. & M. J., vol. 85, p. 351. $8\frac{1}{2}$ columns. I.

THE DEVELOPMENT OF THE HAMMER DRILL P. C. M. & M. Soc. S. A., vol 8, p. 63. $2\frac{1}{2}$ columns.

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CROSSFORM STEEL FOR MACHINE-DRILLS. By E. P. Kennedy. Min. & Sci. Press, vol 97, p. 391. $1\frac{1}{2}$ columns.

STOPING-DRILL STEELS. M. & M., vol. 31, p. 717. 2 columns I.

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FORMS OF DRILL BITS. P. C. M. & M. Soc. S. A., vol. 8, p. 263, I.; p. 275. Note

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umn.

- DRILL CORE PROBLEMS.** By A. C. Lane. M. & M., vol. 30, p. 670. 2½ columns. I.
- A DIAMOND DRILL CORE SECTION OF THE MESABI ROCKS** By N. H. Winchell. T. L. S. M. I., vol. 14, p. 156, 22 pages; vol. 15, p. 100, 42 pages, I.
- RECORD OF BOREHOLE No 1 OF THE STANDARD COAL AND RAILWAY COMPANY, LIMITED, ABOUT ONE MILE NORTH OF HALFWAY RIVER LAKE, CUMBERLAND COUNTY, NOVA SCOTIA.** By R. H. Brown. J. M. Soc. N. S., vol. 10, p. 162. 6 pages.
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- CHURN DRILLING IN ELY DISTRICT.** By J. L. Dobbins. M. & M., vol. 29, p. 526. 4 columns. I.
- DETAILS OF CHURN DRILL OPERATIONS AT SILVERBELL, ARIZONA.** By M. B. Gentry. E. & M. J., vol. 90, p. 850. 4½ columns. I.
- PROSPECTING WITH CHURN DRILLS AT MIAMI, ARIZONA.** By H. A. Field. E. & M. J., vol. 90, p. 804. 5 columns. D.
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- SUCCESSFUL PROSPECTING WITH CHURN DRILL UNDER UNFAVORABLE CONDITIONS** E. & M. J., vol. 87, p. 420. 3 columns.
- CHURN DRILL PROSPECTING IN THE JOPLIN DISTRICT.** By J. F. Haley. E. & M. J., vol. 89, p. 1150. 3 columns. I.
- THE CHURN-DRILL 'AS A MEANS FOR PROSPECTING.** By E. E. Carter. Min. & Sci. Press, vol. 96, p. 572. 1½ columns.
- CHURN DRILLING FOR BLASTING.** E. & M. J., vol. 88, p. 178. ¾ column.
- THE STEEL OIL DERRICK.** By R. B. Woodworth. P. E. Soc. W. Pa., vol. 25, p. 245. 67½ pages. I.
- STEEL DERRICKS AND DRILLING MACHINES.** Min. & Sci. Press, vol. 101, p. 259. 2 columns I.
- DEVELOPMENT AND DESIGN OF THE STEEL OIL DERRICK.** By R. B. Woodworth. E. & M. J., vol. 88, p. 304. 16½ columns I.
- See also **COST OF DRILLING AND BORING.**
- Churn Drills and Drilling**
- COMPLETE CHURN DRILL EQUIPMENT FOR PROSPECTING.** E. & M. J., vol. 90, p. 998. ½ column. Table.
- DRILLING WITH BAMBOO RODS.** By W. A. Moller. T. I. M. E., vol. 36, p. 437. 6 pages. I.
- STEAM CHURN DRILL IN HOT AND COLD CLIMATES.** By J. P. Hutchins. E. & M. J., vol. 86, p. 218. 9 columns. I.
- ELECTRICALLY-DRIVEN WELL-DRILLER.** By J. V. Downie. Min. & Sci. Press, vol. 99, p. 269. 2½ columns. I.
- NEW DEVELOPMENTS IN WELL BORING AND IRRIGATION IN EASTERN SOUTH DAKOTA.** By N. H. Darton. U. S. G. S., 18th Ann Rept, pt. 4, pp. 561-616, 1896-97. I.
- BORING. Prospect Work by Churn Drill.** Min. Mag., vol. 10, p. 451. 4½ pages.

Diamond and Rotary Drills

THE DIAMOND DRILL. Min. & Sci. Press, vol 20, p. 17. $\frac{1}{2}$ column.

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WEAR OF DIAMONDS IN DRILLING VARIOUS ROCKS. E & M J., vol 89, p. 1100 $1\frac{1}{2}$ columns.

NOTE ON DIAMOND DRILLING. By C. M. Haight. Sch Mines Quart, vol 30, p. 98. $1\frac{1}{2}$ pages. I.

DIAMOND DRILLING NOTES IN KEWEE-NAW POINT. M. & M., vol. 31, p. 295 1 column.

THE DIAMOND CORE-DRILL IN PROSPECTING By L T. Wright Min. & Sci. Press, vol. 95, p. 461. $3\frac{1}{2}$ columns.

THE DIAMOND DRILL AT THE SMARTSVILLE TUNNEL. Min. & Sci. Press, vol. 22, p. 344. $1\frac{1}{2}$ columns.

DIAMOND DRILLING AT TONOPAH. By J. M. Fox. Min. & Sci. Press, vol 99, p. 262. $5\frac{1}{2}$ columns. I.

DIAMOND DRILLING AT THE GRANBY MINES J. C. M I., vol 11, p. 401. $\frac{1}{2}$ page.

THE DIAMOND DRILL IN THE ANTHRACITE FIELDS. By F. Lynde. E & M. J., vol. 88, p. 258. 9 columns. I.

PROSPECTING WITH DIAMOND DRILLS IN MEXICAN MINES. E. & M. J., vol. 86, p. 313. $1\frac{1}{2}$ columns.

NOTES ON DIAMOND DRILLING AT THE MICHIGAN COPPER MINE, ROCKLAND, MICHIGAN. By C. M. Haight. Sch. Mines Quart., vol. 30, p. 302. 6 pages. I.

DIAMOND DRILLING AT MAPINI. By J. F. Bennett. E. & M. J., vol. 85, p. 718. 3 columns. I.

DEEP DIAMOND-BORING AT BALFOUR MAINS, FIFESHIRE, GREAT BRITAIN. By J. G. Thompson. T. I. M. E., vol. 36, p. 574. 6 pages. I.

CALYX BORING BY THE VICTORIAN MINES DEPARTMENT By S Hunter. T. Au. I M E, vol 7, p. 46 3 pages I.

DIAMOND DRILL, CALYX AND HAND BORING BY THE VICTORIAN MINES DEPARTMENT. By S. Hunter. T. Au. I M. E., vol. 7, p. 23. 40 pages. I.

SOME NOTES ON "THE DAVIS CALYX DRILL." By Davis and Knapp. T. Au. I. M. E., vol. 3, p. 250. $5\frac{1}{2}$ pages. I.

USE OF THE TERRY CORE DRILL IN MINE OPERATIONS. E. & M. J., vol. 89, p. 1156. 6 columns. I.

DRILLING WITH ROTATED CASING. E & M J., vol. 86, p. 1142. $1\frac{1}{2}$ columns. I.

See also COST OF DRILLING AND BORING.

Deep Drilling

THE WORLD'S DEEPEST BORE-HOLE. P. C. M. & M. Soc. S A., vol. 7, p. 307. Note.

A DEEP DIAMOND DRILL HOLE. E. & M. J., vol. 87, p 791. $1\frac{1}{2}$ columns.

A DEEP BORING AT HESWELL, CHESHIRE, AND ITS BEARING UPON UNDERGROUND GEOLOGY OF THE LIVERPOOL-WIRRAL AREAS By A. Wade. T. I. M. E., vol. 39, p. 163. $23\frac{1}{2}$ pages. I.

RECORD OF DEEP-WELL DRILLING FOR 1904. By M. L. Fuller, E. F. Lines, and A. C. Veatch. U. S. G. S., Bull. 264, 106 pages, 1905; Bull. 298, 299 pages, 1906.

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Rate of Drilling

THE SOUTH AFRICAN STOPE-DRILL COMPETITION. By E. M. Weston. E. & M. J., vol. 85, p. 492. 10 columns. I.

TRANSVAAL DRILL COMPETITION, 1909. M. & M., vol. 31, p. 459 6½ columns. I

RATE OF DRILLING AT GOLDFIELD, NEVADA. E. & M. J., vol. 90, p. 1246. ¾ column

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DRILL CONTEST ON THE RAND. Min. & Sci. Press, vol. 96, p. 361. 3 columns. I

SURFACE TRIALS IN RAND STOPE DRILL COMPETITION. By E. M. Weston. E. & M. J., vol. 87, p. 998. 6½ columns.

RATE OF DRILLING WITH WELL DRILLING OUTFIT FOR COPPER PROSPECTING Min. & Sci. Press, vol. 101, p. 14. Table.

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Submarine Drilling

RECENT IMPROVEMENTS IN SUBMARINE DRILLING. E. & M. J., vol. 35, p. 31. 1 column.

Surveying Bore Holes

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DEVIATION OF BORE-HOLES. By J. Kitchin Min. & Sci. Press, vol. 96, p. 462. 6 columns. I.

THE DEVIATION OF RAND BORE-HOLES FROM THE VERTICAL. By Joseph Kitchin. T. I. M. & M., vol. 17, p. 87 50 pages. I.

CROOKED HOLES WITH CHURN DRILLS. E. & M. J., vol. 90, p. 851. ½ column

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SURVEYING DIAMOND DRILL HOLES. Sch. Mines Quart., vol. 30, p. 305. 3 pages. I.

CONTROLLING THE CURVATURE OF DIAMOND DRILL HOLES By E. E. White. E. & M. J., vol. 90, p. 546. 3 columns. D.

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DIAMOND-DRILL TEST TUBES By J. E. Jopling. M. & M., vol. 30, p. 635. 3 columns. I.

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ON THE ECONOMICS OF MINING. By J. R. Godfrey. T. Au. I. M. E., vol. 5, p. 143. 14 pages.

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STATUS OF MINING AND SMELTING IN COLORADO. By F. Guterman. E. & M. J., vol. 90, p. 1009. 6 columns.

PRESENT MINING CONDITIONS ON THE RAND. By T. H. Leggett. T. A. I. M. E., vol. 39, p. 211. 12½ pages.

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ARE WE PROGRESSING? By S. A. Worcester. Min. & Sci. Press, vol. 99, p. 856. 2½ columns.

LAKE SUPERIOR IRON MINES IN 1907. By D. E. Woodbridge. E. & M. J., vol. 85, p. 113. 9 columns.

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REQUIRED A NEW PAIR OF GLASSES. By F. C. Keighley. E. & M. J., vol. 89, p. 12. 5½ columns.

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EMPIRE BUILDING IN WESTERN MEXICO. By P. E. Barbour. E. & M. J., vol. 85, p. 694. 10½ columns. I.

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THE MINE AND THE FARM. By R. Drummond. J. M. Soc. N. S., vol. 14, p. 15. 14 pages.

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THE HISTORY OF GOLD AND SILVER. By J. W. Malcolmson. Min. & Sci. Press, vol. 95, p. 784. 5½ columns.

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The Function of Gold and Silver

ON THE DECLINE IN THE VALUE OF THE PRECIOUS METALS. Min. Mag., vol. 9, p. 525. 3½ pages.

"DEPRECIATION OF GOLD." By J. P. Norton. E. & M. J., vol. 84, p. 446. 3½ columns.

HAS THE VALUE OF GOLD DEPRECIATED? By W. R. Ingalls. E & M. J., vol. 86, p. 1037. 18 columns. D.

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THE GOLD AND SILVER QUESTION By T. Cornish. T. Au. I. M. E., vol. 2, p. 51. 6 pages.

THE MARKET PRICE AND GOLD PRODUCTION E. & M. J., vol. 85, p. 1303 3 columns. D.

THE SILVER MOVEMENT IN 1907. E. & M. J., vol. 85, p. 302 2 columns.

A RUSSIAN MONEY TRUST. By G. E. Walsh. Min. & Sci. Press, vol. 99, p. 195. 2½ columns.

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Conservation

CONSERVATION OF NATURAL RESOURCES By J. Douglas E. & M. J., vol. 87, p. 1202. 11 columns.

THE CONSERVATION MOVEMENT By C. W. Hayes. Min. & Sci. Press, vol. 101, p. 664. 9½ columns.

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CONSERVATION AND ALASKAN COAL. By H. F. Bain. Min. & Sci. Press, vol. 100, p. 185. 7½ columns. Map.

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"CONCRETE LUMBER" AND FOREST PRESERVATION. E. & M. J., vol. 87, p. 421. ½ column.

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The Copper Trade

THE FUTURE OF COPPER. By J. T. Morrow. E. & M. J., vol. 85, p. 412. 4 columns. D.

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See also **THE COAL TRADE**

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- FIRST YEAR OF THE GOWGANDA DISTRICT, ONTARIO. By G. M. Colvocoresses. E. & M. J., vol. 89, p. 1218. 9½ columns. I.
- THE GOWGANDA REGION IN ONTARIO. E. & M. J., vol. 88, p. 60. 5 columns.
- IMPRESSIONS OF A NEW CAMP: GOWGANDA. By H. E. West. E. & M. J., vol. 87, p. 900. 7 columns.
- NOTES ON THE RAINY RIVER DISTRICT, ONTARIO. By W. L. Fleming. E. & M. J., vol. 88, p. 1064. 6½ columns. I.
- THE EASTERN CANADIAN MINERAL BELT. By T. F. Van Wagenen. Min. & Sci. Press, vol. 101, p. 372. 5½ columns. Map.
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- THE PROGRESS OF GOLD MINING IN NORTH CAROLINA. By E. W. Lyon. E. & M. J., vol. 87, p. 293. 13½ columns. I.
- ORE DEPOSITS OF THE EASTERN GOLDBELT OF NORTH CAROLINA. By W. O. Crosby. T. A. I. M. E., vol. 38, p. 849. 9 pages.
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- THE GOLD DEPOSITS OF FRENCH GUIANA. E. & M. J., vol. 87, p. 400. 2½ columns. I.
- THE GOLD-FIELDS OF FRENCH GUIANA AND THE NEW METHOD OF DREDGING. By A. F. J. Bordeaux. T. A. I. M. E., vol. 41, p. 567. 28 pages. I.
- GOLD-BEARING GRAVELS IN FRENCH GUIANA. T. A. I. M. E., vol. 41, p. 575. 10 pages.
- GOLD MINES OF TIBET. By A. Del Mar. Min. & Sci. Press, vol. 100, p. 254. 3½ columns.
- GOLD MINING IN COLOMBIA. By F. L. Garrison. Min. & Sci. Press, vol. 98, p. 217. 12½ columns. I.
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- ALLUVIAL GOLD DEPOSITS AND MINING IN COLOMBIA. By P. A. Ahlg.

- E. & M. J., vol. 90, p. 1098. 4 columns.
- COLOMBIAN GOLD PLACERS T. A. I. M. E., vol. 39, p. 418. 1 page. Table
- PRIMARY GOLD IN COLORADO GRANITE. By J. B. Hastings. T A I. M. E., vol. 39, p. 97. 6 pages. I.
- LESSONS FROM GILPIN COUNTY PRACTICE By G. E. Collins. Min & Sci. Press, vol. 101, p. 366. 11½ columns.
- THE ALICE MINE. Colorado's Largest Ore Body. By R. L. Herrick M. & M., vol. 29, p. 294. 6 columns I.
- REPORT ON THE POVERTY GULCH MINE. By C. W. Henderson. M. & M., vol. 31, p. 586, 5½ columns, I; p. 694, 7 columns, I.
- GOLD ORE NEAR NEWCASTLE, COLORADO By F. Rickard. Min & Sci. Press, vol. 99, p. 503. 1 column. I.
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- LA PLATA MOUNTAINS, COLORADO. By R. H. Toll. Min. & Sci. Press, vol. 97, p. 741. 6½ columns. Map.
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- GOLD PLACER DEPOSITS NEAR FAY, ROUTT COUNTY, COLORADO By H. S. Gale. U. S. G. S., Bull. 340, p. 84. 13 pages I. 1907.
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- GOLD MINING INDUSTRY IN THE DUTCH EAST INDIES. By E. A. Winton. E & M J., vol. 88, p. 513. 4½ columns. Map.
- OCCURRENCE OF AURIFEROUS AND STANIFEROUS TOURMALINE IN SUMATRA. By L. Hundeshagen. E. & M. J., vol. 87, p. 1003. ½ column.
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- YOQUIVO MINE AND MILL, WESTERN CHIHUAHUA. By W. H. Seamon. E. & M. J., vol. 90, p. 811. 4 columns. I.
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- SANTA GERTRUDE'S AND LA BLANCA MINES, PACHUCA, MEXICO. E. & M. J., vol. 88, p. 670. 1 column. I.
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- SAN RAFAEL Y ANEXAS MINING COMPANY, PACHUCA, MEXICO. By E. Girault. E. & M. J., vol. 90, p. 643. 9 columns. I.
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- TOPOGRAPHICAL AND OTHER NOTES ON THE CHOIX-GUADALUPE Y CALVO MINING DISTRICT, MEXICO. By A. W. Warwick. Min. & Sci. Press, vol. 95, p. 686. 6 columns. I.
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- SOME OF THE CAUSES OF THE PRESENT CONDITION OF GOLD MINING IN NOVA SCOTIA. By G. W. Stuart. J. M Soc N S, vol. 12, p. 85. 19½ pages.
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CAR WHEEL FORGING AND CONDITIONS OF STEEL FOR HIGH SERVICE. By J. H. Baker P. E. Soc. W. Pa., vol. 25, p. 165 $25\frac{1}{2}$ pages. I.

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MORAL REVOLUTION IN ANTHRACITE MINING. By P. M. Greer. E. & M. J., vol. 89, p. 1171. 3½ columns.

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MOISTURE IN MINE AIR. M. & M., vol. 30, p. 583. $5\frac{1}{2}$ columns. I.

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- HUMIDITY AFFECTS WORKMEN. Dr. Cadman, Report, p. 4.
- EFFECT ON WORKMEN OF HIGH TEMPERATURE AND HUMIDITY. T. A. I. M. E., vol 41, p. 50. 3 pages.
- See also MINE ATMOSPHERE AND GASES.
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- FLUXES OF THE BIRMINGHAM DISTRICT, ALABAMA.** By E F. Burchard and C. Butts. U S. G S, Bull 400 204 pages I 1910
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- ALLOYS OF COPPER: German Silver, Bronze Ordnance, or Common Metal—Bell Metal.** *Min. Mag.*, vol. 10, p. 197. 16 pages.
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- NOTES ON THE METALLURGY AT COPPERHILL, TENNESSEE** By G. A. Guess E. & M. J., vol. 90, p. 866. 2½ columns.
- THE TINTIC SMELTER** By L. A. Palmer M. & M., vol. 29, p. 535. 3½ columns I.
- THE TYEE SMELTER.** By R. L. Phelps. Min & Sci. Press, vol 95, p. 782. 3½ columns. I
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- YAMPA SMELTER, BINGHAM, UTAH.** By L. A. Palmer Min & Sci Press, vol 99, p. 225. 6½ columns I
- THE YAMPA SMELTER AT BINGHAM, UTAH.** By L. A. Palmer. M. & M., vol 31, p. 14. 8½ columns I
- THE INTERNATIONAL SMELTERY AT TOOELE, UTAH.** E. & M J., vol 90, p. 1059. 6½ columns. I.
- THE NEW INTERNATIONAL SMELTERY AT TOOELE, UTAH.** By J. Tyssowski. E. & M. J., vol. 89, p. 865. 7 columns. I.
- THE TOOELE SMELTER.** By C. M. McGregory. M. & M., vol. 31, p. 321. 5½ columns. I
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- See also CONCENTRATION, and THE COPPER TRADE, also COST OF METALLURGICAL TREATMENT.
- Blast Furnace Smelting of Copper**
- PRACTICAL BLAST FURNACE MANAGEMENT** By Randolph Bolling. E. & M. J., vol. 85, p. 989. 8 columns. I.
- BLAST FURNACE PROGRESS.** By J. Birkinbine. U S G S, Mineral Resources, 1883 and 1884, vol. 14.
- A BLAST FURNACE OF OVAL SECTION.** E. & M J., vol 87, p 853 3½ columns. I.
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- ON THE USE OF RAW COAL IN BLAST FURNACES** Min. Mag., vol 8, p 1.
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- CIRCULAR COPPER BLAST FURNACES.** By T. E. Lambert. M. & M., vol. 31, p 20. 6½ columns. I.
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- THE CANANEA BLAST FURNACE** By C. F. Shelby. E. & M. J., vol 85, p. 841. 16 columns. I.
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Reverberatory Smelting of Copper

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Refining of Copper

ELECTROLYTIC COPPER REFINERY. Min & Sci. Press, vol. 101, p. 75. 1½ columns.

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A STUDY IN REFINING AND OVERPOLING ELECTROLYTIC COPPER. By H. O. Hofman, R. Hayden, and H. B. Hallowell. T. A. I. M. E., vol. 38, p. 171. 24 pages. I.

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EFFECT OF TEMPERATURE ON THE ELECTROLYSIS OF COPPER. E. & M. J., vol. 86, p. 755. 2 columns.

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Electro-Metallurgy

ELECTRIC SMELTING OF ORE AT HEROULT, CALIFORNIA. By J. Tysowski. E. & M J., vol. 90, p. 269. 8½ columns. I

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Glass Making

HISTORY OF GLASS MAKING. By G. A. Macbeth. P. E. Soc. W. Pa., vol. 23, p. 625 21 pages D

QUESTIONS ARISING IN THE MAKING OF GLASS. By R. L. Frink. P. E. Soc. W. Pa., vol. 23, p. 646. 10 pages I

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Metallurgy of Gold and Silver

PREPARATION OF THE ORES OF SILVER-LEAD, AND COPPER, AND THEIR METALLURGICAL TREATMENT AT THE WORKS AT LOZÈRE, FRANCE By M. Lau Min. Mag., vol. 7, p. 219, 11½ pages; p. 470, 6 pages

THE METALLURGICAL TREATMENT OF THE SULPHO TELLURIDE ORES OF KALGOORLIE, WITH SPECIAL REFERENCE TO EXPERIMENTS CONDUCTED AND SULPHIDE MILL ERECTED ON THE ASSOCIATED GOLD MINES OF WESTERN AUSTRALIA, LIMITED. By L. W. Grayson T. Au I. M. E., vol. 7, p. 170, 20 pages; vol. 8, pt. 1, p. 114, 13 pages

EXTRACTION OF GOLD BY HYPOSULPHITE OF SODIUM, AND ROASTING ORE FOR CYANIDING By E. Janitzky. T. Au I. M. E., vol. 7, p. 99. 3 pages.

THE SOLUBILITY OF GOLD IN THIO-SULPHATES AND THIOCYANATES. By H. A. White. P. C. M. & M., Soc. S. A., vol. 6, p. 109, 4½ columns; p. 197, 1 column; p. 225, 2 columns; p. 274, 1½ columns

ON THE LIXIVIATION OF AN AURIFEROUS ARSENOFERRITE CONCENTRATE. By T. T. Fulton J. M. Soc. N. S., vol. 10, p. 97. 27½ pages D

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HYDROMETALLURGY OF COBALT ORES. By E. B. Wilson M. & M., vol. 31, p. 303. 9 columns. I

See also **CYANIDING GOLD, ETC., METALLURGY OF LEAD, AND COST OF METALLURGICAL TREATMENT.**

Smelting Gold and Silver

BLAST FURNACE GASES IN SILVER-LEAD SMELTING. By L. S. Austin. Min. & Sci. Press, vol. 97, p. 364. 1½ column.

HEAT OF FUSION OF SILVER-LEAD BLAST FURNACE SLAG. By L. S. Austin. Min. & Sci. Press, vol. 96, p. 567. ½ column.

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CHANCELLORSVILLE GOLD AND SILVER ORE REDUCTION COMPANY. Min. Mag., vol. 9, p. 451. 4 pages.

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THE PEARCE GOLD-SEPARATION PROCESS. By H. V. Pearce. T. A. I. M. E., vol. 39, p. 722. 12 pages.

Cyaniding, Processes, Theory, Etc.

THE ACTION OF CYANIDE OF POTASSIUM ON GOLD AND SOME OTHER METALS AND MINERALS. By G. A. Goyder. T. A. I. M. E., vol. 1, p. 84. 15 pages. I.

THEORY OF THE DISSOLUTION OF METALS BY CYANIDE. By J. B. Stuart. Min. & Sci. Press, vol. 101, p. 180. 2½ columns.

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TESTS ON ACID REGENERATION OF CYANIDE SOLUTIONS. By R. P. Wheelock. Min. & Sci. Press, vol. 99, p. 814. 10 columns. I.

TABLE FOR STANDARDIZING SUMP SOLUTIONS. By C. W. Hess. Min. & Sci. Press, vol. 101, p. 445. Table.

THE DETERMINATION OF CONSTANTS IN WORKING CYANIDE SOLUTIONS. By G. W. Williams. P. C. M. & M. Soc. S. A., vol. 5, p. 13, 7½ columns; p. 54, 7½ columns.

RAPID ESTIMATION OF PULP IN CYANIDE TANKS. By M. R. Lamb. E. & M. J., vol. 89, p. 160. 2 columns.

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CARBON AND CELLULOSE IN CYANIDE SOLUTIONS. By A. J. Clark and W. J. Sharwood. Min. & Sci. Press, vol. 100, p. 554. 5 columns.

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TWO DETERRENTS TO THE DISSOLUTION OF FREE GOLD IN THE CYANIDE PROCESS. By D. Simpson. T. A. I. M. & M., vol. 17, p. 330. 1 page.

- CYANIDATION OF RAW PYRITIC CONCENTRATES P. C. M. & M. Soc. S. A., vol. 7, p. 422 $\frac{1}{2}$ column.
- CYANIDATION OF SULPHIDES. By M. N. Colman. Min. & Sci. Press, vol. 101, p. 308. 3 columns.
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- CHEMISTRY OF THE BROMO-CYANOGEN PROCESS. By S. H. Warrell. Min. & Sci. Press, vol. 98, p. 356. 2 $\frac{1}{2}$ columns.
- See also CHEMICAL ANALYSIS IN CYANIDING
- BROMO-CYANIDING OF GOLD ORES. By E. W. Nardin. Min. & Sci. Press, vol. 97, p. 562. $5\frac{1}{2}$ columns
- BROMO-CYANIDING OF GOLD ORES By E. W. Nardin. T. Au. I. M. E., vol. 12, p. 69. 10 pages.
- ACTION OF ALKALINE SOLUTIONS IN CYANIDING. P. C. M. & M. Soc. S. A., vol. 8, p. 281. 2 $\frac{1}{2}$ columns.
- LIME REACTION IN CYANIDING. By T. P. Holt. M. & M., vol. 31, p. 475 $1\frac{1}{2}$ columns
- NOTES ON THE ESTIMATION OF CAUSTIC LIME. By E. H. Croghan P. C. M. & M. Soc. S. A., vol. 8, p. 37, 11 columns; p. 84, $1\frac{1}{2}$ columns; p. 122, 11 columns; p. 145, $\frac{1}{2}$ column; p. 183, 8 columns; p. 206, 6 columns.
- LABORATORY TESTS ON THE USE OF COARSE AND FINE LIME FOR CYANIDING By W. J. Sharwood P. C. M. & M., Soc. S. A., vol. 8, p. 293. $9\frac{1}{2}$ columns. D
- AUTOMATIC ZINC DUST FEEDER. By J. S. Colbath E. & M. J., vol. 89, p. 453. 2 columns I
- A NOVEL WASHING AND LEACHING APPARATUS. By A. Gradenwitz E. & M. J., vol. 86, p. 227 2 columns I.
- NEW CYANIDE DEVICE. By L. Fraser. Min. & Sci. Press, vol. 101, p. 504 $2\frac{1}{2}$ columns. I.
- A CHEAP FORM OF CYANIDE PLANT. By C. Hunter. T. I. M. & M., vol. 17, p. 268. 8 pages
- HOME-MADE CYANIDE PLANT By W. F. Boericke and B. L. Eastman. Min. & Sci. Press, vol. 97, p. 712. $1\frac{1}{2}$ columns.
- A ROTARY EXTRACTOR FOR PRECIOUS METALS FROM SOLUTIONS. By W. D'Arcy and E. T. Rand. P. C. M. & M., Soc. S. A., vol. 10, p. 201 6 columns. I.
- THE KIDNEY PULP DISTRIBUTOR By C. T. Rice E. & M. J., vol. 90, p. 1046 $3\frac{1}{2}$ columns. I
- CYANIDATION WITH THE BROWN VAT. By F. Narvaez Min. & Sci. Press, vol. 95, p. 689. $1\frac{1}{2}$ columns I.
- A MODIFICATION OF PACHUCA-TANK PRACTICE. By A. J. Yager. Min. & Sci. Press, vol. 101, p. 539 2 columns. I.
- CONTINUOUS AGITATION SYSTEM AT ESPERANZA. By M. A. Kuryla E. & M. J., vol. 90, p. 213. $3\frac{1}{2}$ columns. I.
- AIRLIFT AGITATION IN CYANIDING P. C. M. & M. Soc. S. A., vol. 8, p. 358. $1\frac{1}{2}$ columns.
- NOTES ON AIR AGITATION By M. R. Lamb E. & M. J., vol. 86, p. 901 3 columns.
- AGITATION BY COMPRESSED AIR By F. C. Brown Min. & Sci. Press, vol. 97, p. 424 $6\frac{1}{2}$ columns I

- ASSISTING THE SOLUTION OF GOLD IN THE CYANIDE PROCESS BY COMPRESSED AIR. By A F Crosse P. C M & M Soc. S A., vol 8, p 36. 1 column
- See also COMPRESSED AIR IN MINING.
- CYANIDE LIXIVIATION BY AGITATION. By W M. Brodie. E. & M J, vol 87, p. 695. 3½ columns I.
- A NEW METHOD OF AGITATING CYANIDE PULPS. By E G. Spilsbury E. & M. J, vol. 89, p. 662. 3 columns
- METHODS OF PULP AGITATION. By L M Kniffen Min & Sci Press, vol 100, p. 824. 2½ columns
- AGITATOR FOR CYANIDE TESTS. By G. H. Clevenger. Min. & Sci Press, vol. 98, p. 759. 1 column. I
- BROWN TYPE OF LABORATORY AGITATOR. By T. S. Lawlor. Min. & Sci Press, vol. 99, p. 197. 2½ columns. I.
- COMBINED AGITATOR AND VACUUM-FILTER FOR CYANIDING. Min. & Sci. Press, vol. 96, p. 459. 1 column. I.
- PRESENT TENDENCIES IN CYANIDE PRACTICE. By M R. Lamb E. & M. J, vol. 90, p 855 11½ columns.
- PROGRESS IN CYANIDATION IN 1909. By A. James. Min & Sci. Press, vol 98, p 47. 13 columns I
- IMPROVEMENTS IN THE CYANIDE PROCESS. By B. MacDonald Min. & Sci. Press, vol. 100, p. 798. 4 columns. I.
- CYANIDE PRACTICE. By A James. Min & Sci. Press, vol 100, p. 41. 12 columns. I
- PROPOSED SIMPLIFICATION OF THE CYANIDE PROCESS. By B Mierisch. E & M J., vol 89, p. 1327. 4 columns. I.
- PROGRESS AND DEVELOPMENTS IN CYANIDE PRACTICE. By M. R. Lamb. E & M. J, vol. 89, p. 178. 5 columns.
- HISTORY OF CYANIDATION. By P Argall. Min & Sci. Press, vol. 95, p. 655, 5½ columns; p 682, 6½ columns.
- PROGRESS IN CYANIDATION. By A. James E & M J, vol 87, p. 1194. 3 columns
- NOTES ON CYANIDATION. By L. D. Bishop. E & M. J, vol. 87, p 842. 6½ columns I.
- IMPROVEMENT IN CYANIDE PRACTICE. By E G. Spilsbury. T. A I. M E., vol. 41, p. 367 12 pages. I.
- BEGINNINGS OF CYANIDATION. By J. McCombie Min Mag. London, vol. 4, p 456 2 columns
- DEVELOPMENTS IN CYANIDE PRACTICE. By P E Barbour M & M, vol. 31, p 597. 8 columns I.
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- NOTES ON THE WORKING OF THE McARTHUR-FOREST PROCESS FOR EXTRACTING GOLD. By G A. Goyder T Au I. M. E, vol 3, p 159 12 pages
- THE CLANCY PROCESS Lixiviation Process. By J C Clancy. Min. & Sci Press, vol. 101, p 862. 5½ columns
- THE CLANCY CYANIDE PROCESS. M. & M., vol. 31, p. 433. 3 columns.
- THE ADAIR-USHER PROCESS. By A. Adair. P. C. M. & M. Soc S. A., vol. 8, p. 331, 18½ columns, D, vol 9, p. 23, 2 columns; p 48, 5 columns; p 94, 5 columns; p. 118, 3 columns; p. 158, 7½ columns.
- THE NEW CLANCY CYANIDE PATENTS. E & M. J, vol. 90, p. 701. 9 columns.
- RECENT DEVELOPMENTS IN THE ATTEMPT TO AMEND THE CYANIDE PATENT. By G G. Tutti T. Au. I M. E., vol. 4, p. 195. 20 pages
- CYANIDATION OF CONCENTRATE. By F. C Brown Min & Sci. Press, vol. 101, p 273 1½ columns.

- CYANIDING CONCENTRATE AT TARACOL, KOREA By J. D. Hubbard. Min & Sci. Press, vol. 99, p. 471. 5½ columns.
- NOTES ON THE CYANIDE TREATMENT OF CONCENTRATES. By A. Grothe. E & M J, vol. 88, p. 668. 3½ columns I
- CYANIDATION OF CONCENTRATES. By A E Drucker. Min & Sci Press, vol. 100, p. 416 4½ columns. I.
- NOTE ON THE CYANIDING OF CONCENTRATES BY PERCOLATION By A. L. Edwards P C. M. & M. Soc. S. A., vol. 5, p. 345. 1½ columns.
- LAST DRAININGS. By H A. White. P. C M & M Soc. S. A., vol. 7, p. 239, 9 columns, D.; p. 329, 4 columns; p. 407, 8 columns, D.; vol. 8, p. 15, 2½ columns
- A QUICK TREATMENT BY CYANIDE OF "BLACK SANDS." By B V Burnett. P C M. & M Soc. S. A., vol. 6, p. 240, 2 columns; p. 277, 1 column, p. 316, 1 column; p. 344, 1½ columns
- ELECTROCHEMISTRY OF SOLUTION OF GOLD IN POTASSIUM CYANIDE. P. C. M. & M Soc. S. A., vol. 10, p. 21. 2½ columns.
- CONTINUOUS COLLECTION OF SAND FOR CYANIDING By W. A. Caldecott. Min. & Sci. Press, vol. 99, p. 659. 4 columns
- THE CONTINUOUS COLLECTION OF SAND FOR CYANIDING. By W. A. Caldecott. P. C. M. & M. Soc. S A., vol. 10, p. 43, 2½ columns, I; p. 142, 2 columns; p. 238, 2½ columns.
- SAND COLLECTING AND WASHING. P. C. M. & M. Soc. S. A., vol. 8, p. 391. 1½ columns.
- See also SAND TREATMENT.
- NOTES ON THE PRECIPITATING EFFECTS OF SUBSTANCES CONTAINING VARIOUS FORMS OF CARBON AND CELLULOSE ON CYANIDE SOLUTIONS CONTAINING GOLD AND SILVER. By A. J. Clark and W. J. Sharwood. P. C M & M Soc. S. A., vol. 10, p. 234, 8 columns, p. 405, 1 column.
- PRECIPITATION FROM CYANIDE SOLUTIONS BY ZINC SHAVINGS AND DUST: A Comparison of Results and Costs. By A. J. Clark. P. C. M & M. Soc. S A., vol. 9, p. 222, 3 columns; vol. 10, p. 205, 3 columns
- EXPERIMENTS ON THE PRECIPITATION OF GOLD FROM CYANIDE SOLUTION BY CARBON IN LIME By E. H. Croghan. P C M & M Soc. S. A., vol. 10, p. 391 5 columns
- PRECIPITATION OF GOLD BY CARBONACEOUS MATTER By W. A. Caldecott. Min & Sci. Press, vol. 98, p. 828. 1½ columns.
- ZINC BOX WHITE PRECIPITATES. By R F Coolidge. Min & Sci Press, vol. 99, p. 394 4 columns.
- ELECTRICAL PRECIPITATION FROM CYANIDE SOLUTIONS. E. & M. J, vol. 89, p. 598. 1½ columns
- ELECTROLYTIC PRECIPITATION. By M. R Lamb E & M J, vol. 87, p. 705. 2 columns.
- PRECIPITATION OF GOLD AND SILVER BY SOLUBLE SULPHIDES E. & M. J., vol. 87, p. 841. 1½ columns
- NOTES ON PRECIPITATION. By M. Smith. P. C. M. & M, Soc S. A., vol. 9, p. 300. 4½ columns; p. 351, 1½ columns.
- ZINC DUST PRECIPITATION. By A. J. Clark. Min. Mag London, vol. 4, p. 289. 7½ columns. I.
- ZINC DUST PRECIPITATION AT THE HOMESTAKE MINE. By R Linton. E. & M. J, vol. 88, p. 199. 1½ columns.
- ZINC DUST PRECIPITATION AT CERRO-PRIETO By R. Linton. P. C. M. & M Soc. S A, vol. 10, p. 60. 2½ columns.
- ZINC DUST PRECIPITATION AT MERCUR, UTAH. E. & M. J., vol. 86, p. 79. 1 column.
- ZINC DUST PRECIPITATION AT CERRO-PRIETO. By Robt Linton P. C. M. & M. Soc. S. A., vol. 9, p. 74, 5 columns; p. 165, 3 columns, p. 207, 1½ columns; p. 232, 1 column.

- ZINC BOX PRECIPITATION AT PARRAL,** Mexico E & M J. vol 86, p. 122. 1½ columns
- THE "WHITE PRECIPITATE" OF THE PRECIPITATING BOXES IN THE CYANIDE WORKS** By A. Prister P. C. M. & M. Soc. S. A., vol 5, p. 62, 1 column, p 75, 8 columns; p. 129, 10½ columns; p. 148, 5½ columns, p. 171, 6 columns; p. 310, 1½ columns
- DE WILDE PRECIPITATION PROCESS.** By G. Witteveen. M & M., vol. 31, p. 342. 3½ columns.
- THE TREATMENT OF SLIMES BY CYANIDATION AND ELECTRICAL PRECIPITATION ON MERCURY** By F. T Mumford T Au I. M. E., vol 9, p. 96. 10 pages. I
- CYANIDING SLIME** By M R. Lamb T A. I. M. E., vol 40, p. 775. 4½ pages. I.
- SLIME TREATMENT IN CYANIDING** T A. I. M. E., vol. 40, p 768 6 pages I
- CYANIDING SLIME** T. A I M E, vol. 40, p 775 4½ pages. I
- SETTLING SLIME IN CYANIDE TREATMENT** P. C. M & M Soc S A., vol. 9, p. 411. 1 column.
- IMPROVEMENTS IN SLIME TREATMENT** By M. Torrente P. C. M & M. Soc. S. A., vol. 5, p. 46, 6½ columns, I.; p 83, 1½ columns; p. 100, 1½ columns; p. 127, 3 columns; p 150, 4 columns; p 179, 3½ columns
- NOTES ON IMPROVEMENTS IN THE CYANIDE TREATMENT OF SANDS AND SLIMES.** By C H Pead. P. C M. & M, Soc. S A., vol 6, p. 76, 4 columns; p. 194, 2 columns; p. 223, 3 columns, p. 249, 3½ columns
- COLLOIDAL SILICIC ACID IN SLIMES** By W. A. Caldecott. P. C. M. & M. Soc. S. A., vol 7, p. 217. 1 column.
- THE TREATMENT OF ACCUMULATED SLIME, AND THE USE OF FILTER PRESSES FOR CLARIFYING SLIME SOLUTION AND BY-PRODUCTS.** By J. D O'Hara. P C M. & M Soc S A., vol. 10, p. 342, 5 columns, p 403, 2 columns, I.
- TREATMENT OF A CONCENTRATE-SLIME** By A. E. Drucker Min. & Sci Press, vol 96, p. 458. 5 columns. I.
- THE SEPARATION OF SLIME IN CYANIDE TREATMENT.** By H. G. Nichols. Min. & Sci. Press, vol 96, p 563. 7 column I.
- TREATMENT OF SLIME IN THE CYANIDE PROCESS** Min. & Sci. Press, vol. 100, p. 798 4 columns I
- SLIME TREATMENT IN CYANIDING.** Min & Sci Press, vol. 100, p. 44. 5 columns I
- A METHOD OF SETTLING SLIMES, AS APPLIED TO THEIR SEPARATION FROM SOLUTION IN CYANIDE TREATMENT** By H G Nichols. T. I M. & M, vol 17, p. 293. 38 pages I
- CYANIDE TREATMENT OF SLIME** P. C M. & M. Soc. S. A., vol. 10, p. 322. 3½ columns.
- METHOD OF TESTING SLIME.** By G. J. Young. Min. Mag, London, vol. 3, p. 133. 2½ columns I
- SLIME TREATMENT BY CYANIDATION.** E & M J, vol 88, p 688. 5½ columns.
- A PROPOSED NEW SYSTEM FOR THE CYANIDE TREATMENT OF SLIMES.** By F. McCann. E & M. J., vol. 88, p. 688. 5½ columns.
- CYANIDING SLIMES.** E. & M. J, vol. 89, p 462. 1½ columns. I.
- ALL-SLIME TREATMENT OF ORE IN CYANIDE PLANTS.** By H. A. Megraw. E. & M J., vol. 89, p. 319. 5 columns. I.
- CYANIDING SLIMES.** E. & M. J, vol. 89, p. 319. 5 columns. I
- CYANIDING SLIME: Process** By E. B Wilson. M. & M., vol. 29, p. 59. 6 columns. I.
- SLIME TREATMENT IN CYANIDING.** By E. B. Wilson. M. & M., vol. 29, p. 59. 6 columns. I.

- SLIME TREATMENT IN CYANIDING.** M. & M., vol. 29, p. 129, 9 columns, I.; p. 187, 3 columns, I., p. 224, 6 columns, I
- SLIMING ORE FOR CYANIDATION.** By M. R. Lamb Min. & Sci Press, vol. 95, p. 658 1½ columns
- SLIME SETTLING BEFORE CYANIDING.** E & M. J., vol 87, p. 837 3 columns. I.
- ALL-SLIMING.** By E M Hamilton. Min. & Sci. Press, vol 99, p 255. 5½ columns I.
- THE CHEMICAL CONTROL OF SLIMES.** By H. E. Ashley T. A I M E., vol. 41, p. 380 16 pages. I
- SLIME TREATMENT AT VARIOUS CYANIDE PLANTS.** Min. & Sci. Press, vol 95, p. 46. 4½ columns.
- THE UTILIZATION OF WASTE HEAT IN SLIMES TREATMENT.** By A. Salkinson. P. C. M & M. Soc S A, vol 7, p 403, 6 columns, vol 8, p. 52, 1 column; p 81, 7½ columns, p 142, 6½ columns.
- FURTHER NOTES ON THE UTILIZATION OF WASTE HEAT IN SLIMES TREATMENT** By A Salkinson P C. M & M. Soc. S. A., vol 9, p. 308. 3½ columns
- PROPOSED PROCESS FOR TREATMENT OF ZINC GOLD SLIMES BEFORE SMELTING** By C. E. Meyer. P C. M. & M. Soc. S. A., vol 6, p. 361, 6 columns; p 83, 1 column; p. 139, 2 columns
- THE DORR CONTINUOUS SLIME THICKENER.** M. & M., vol. 30, p 79. 1½ columns I.
- SLIME TREATMENT AT KALGOORLIE.** By M W. von Bernewitz. Min. & Sci Press, vol 95, p 743 2 columns I.
- SLIME TREATMENT AT THE SANTA NATALIA MILL.** By C Shapeley. E. & M. J., vol. 90, p. 358. 4 columns I.
- ALL-SLIME CYANIDE PROCESS AT HACIENDA DE LA UNION.** E & M. J., vol. 86, p. 991. 2 columns.
- SLIME TREATMENT AT THE TAJO, ROSARIO MILL, MEXICO** T. A. I M E., vol. 41, p 345 11 pages. I
- SLIME TREATMENT AT THE NORTH STAR MINES, CALIFORNIA** E & M. J., vol 90, p. 410 1 column.
- FILTER PRESS TREATMENT OF SLIMES.** By H R Edmans T Au I M E., vol 11, p. 77. 19½ pages. I
- NOTES ON THE USE OF THE FILTER PRESS FOR CLARIFYING SOLUTIONS.** By S J. Truscott and A Yates. P. C. M & M Soc. S. A, vol 7, p 3, 2½ columns; p 45, 2 columns; p 83, 2 columns; p 269, ¼ column; p. 321, 2 columns.
- FILTERING SLIMES** By E Parrish. Min & Sci Press, vol 99, p. 493. 2½ columns.
- FILTER PRESS WORK.** M. & M., vol 31, p 600 1 column I.
- FILTER PRESSING SLIMES** By M W. von Bernewitz Min & Sci. Press, vol 101, p 377. 3 columns
- FILTER PRESS WORK IN CYANIDING CONCENTRATE** Min. & Sci. Press, vol 100, p 416 3 columns I
- VACUUM FILTRATION** By A. Nichols. Min & Sci Press, vol 100, p. 395. 2 columns. I.
- FILTER PRESSING.** P. C M. & M. Soc S A, vol. 10, p. 222. ¼ column.
- THE FILTER PRESS IN CYANIDING** By E B Wilson M. & M, vol 29, p 129, 9 columns, I; p 187, 3 columns, I., p 224, 6 columns, I
- FILTERING SLIMES IN CYANIDING.** Min & Sci. Press, vol 95, p. 715. 3 columns. I
- FILTERING GOLD SLIME.** By E. Jensen E. & M. J, vol. 87, p. 902. 2 columns. I.
- CONTINUOUS VACUUM-FILTER MACHINE** By B Hunt. Min & Sci. Press, vol. 97, p. 430. 3 columns. I.
- CONTINUOUS SLIME FILTER** By R. Schorr Min & Sci Press, vol. 97, p. 194. 4 columns. I.

- OLIVER CONTINUOUS FILTER By A H Martin Min & Sci Press, vol. 99, p 715. 2 columns I.
- USE OF THE OLIVER CONTINUOUS FILTER AT THE NORTH STAR MINES, CALIFORNIA. E & M J, vol. 90, p. 411. 1 column I.
- THE OLIVER FILTER PRESS AT GRASS VALLEY E & M J, vol. 87, p 440. $\frac{1}{2}$ column I.
- THE OLIVER CONTINUOUS FILTER AT MINAS DEL TAJO By G A. Tweedy and R. L Beals. E & M J, vol. 89, p. 506 5 columns. I.
- THE BURT RAPID CYANIDE FILTER. By E Burt. Min. & Sci Press, vol. 95, p 717. $3\frac{1}{2}$ columns. I.
- THE BUTTERS' SLIME-FILTER AT THE CYANIDE PLANT OF THE COMBINATION MINES COMPANY, GOLDFIELD, NEVADA By M. R Lamb T A I. M. E, vol 38, p 200. 10 pages. I
- THE BUTTERS' FILTER USED AT THE MONTEZUMA MILL, COSTA RICA E. & M. J., vol. 90, p 716 $\frac{1}{2}$ column.
- THE SWEETLAND FILTER PRESS By E J Sweetland E & M J, vol 85, p 359 3 columns I
- THE HUNT CONTINUOUS SLIME FILTER P C M & M Soc. S A., vol 10, p. 295. $1\frac{1}{2}$ columns
- FILTERING SLIMES BY RIDGEWAY FILTER E. & M. J, vol 86, p 121. 1 column.
- PRESSURE FILTRATION. By E. J. Sweetland Min. & Sci Press, vol. 99, p 853 $4\frac{1}{2}$ columns I
- THE BLAISDELL PRESSURE FILTER. Min. & Sci. Press, vol 95, p. 188. 1 column I.
- VACUUM SLIME-FILTERS AT GOLDFIELD. By A. M Smith Min. & Sci. Press, vol 99, p. 65. 2 columns.
- THE FAIRCHILD VACUUM-FILTER. Min. & Sci Press, vol. 95, p. 279. 1 column. I.
- VACUUM SLIME-FILTERS. Min & Sci. Press, vol. 95, p. 46 $4\frac{1}{2}$ columns
- IMPROVEMENTS IN THE TREATMENT OF SLIME BY THE VACUUM-FILTER PROCESS By A W Allen. E & M. J, vol. 87, p. 1004. 3 columns. I.
- VACUUM-FILTER TREATMENT OF SLIMES. E. & M J, vol 87, p 1004 3 columns. I.
- VACUUM-FILTERING OF SLIME AT WAIHI, NEW ZEALAND P. C. M & M, Soc S. A., vol 8, p 13. 2 columns
- FILTRATION OF SLIMES AT EL ORO, MEXICO. By D L. H. Forbes. E & M J, vol 86, p. 458. $3\frac{1}{2}$ columns. I.
- FILTER PRESSES AT THE TAJO, ROSARIO MILL, MEXICO T. A. I M. E, vol. 41, p 349. 12 pages
- FILTER PRESS PRACTICE IN THE HOME-STAKE MILLS. Min & Sci. Press, vol. 95, p. 21 $4\frac{1}{2}$ columns. I
- SLIME TREATMENT AT THE EL ORO MILL, MEXICO. E. & M J, vol. 87, pp. 688 and 689 4 columns.
- See also SLIMES AND THEIR TREATMENT
- SOME SUGGESTIONS ON THE CYANIDING OF TAILINGS By A Prister. P C M & M. Soc S A., vol. 5, p 338, $6\frac{1}{2}$ columns; vol. 6, p 113, $1\frac{1}{2}$ columns, p. 190, $\frac{1}{2}$ column.
- A PROPOSED METHOD OF TREATING SAND RESIDUE DUMPS. By S. J Truscott and A. Yates. P. C. M. & M. Soc S A., vol 6, p. 213. $3\frac{1}{2}$ columns, vol. 7, p. 293, 3 columns.
- THE CYANIDING OF REFRACTORY TAILINGS ON THE WITWATERSRAND. By W. H C. Lovely T. Au. I M. E, vol. 11, p. 104. 9 pages.
- RE-TREATMENT OF TAILING AT OROYA-BROWNHILL. Min. Mag London, vol 4, p. 460 $1\frac{1}{2}$ columns. I
- Flowsheet
- See also SAND TREATMENT.

- CYANIDATION OF SILVER ORES. By W. J. Sharwood. Min. & Sci. Press, vol. 97, p. 418. 5 columns.
- CYANIDATION OF MANGANESE SILVER ORES. By E. M. Hamilton. Min. & Sci. Press, vol. 99, p. 756 2½ columns.
- CYANIDATION OF SILVER ORES. By F P Holt. Min. & Sci. Press, vol. 98, p. 546. 4 columns Tables.
- CYANIDATION OF SILVER ORES By T. P. Holt Min. & Sci. Press, vol. 99, p. 159 6½ columns. D
- CYANIDATION OF SILVER ORES. By D Mosher. Min & Sci Press, vol. 98, p. 691. 5½ columns. I.
- CYANIDATION OF SILVER ORES. By L. B. Kniffin. Min & Sci. Press, vol. 100, p. 322 1½ columns.
- TREATMENT OF THE MOUNT REID AURIFEROUS ORES WITH THE HELP OF CYANIDE OF POTASSIUM By L. Williams. T. Au. I. M E, vol 4, p. 45. 5 pages.
- EXPERIMENTS ON THE ASSAY OF ACID WASHES RESULTING FROM THE CYANIDE "CLEAN-UP" BY THE USE OF BISULPHATE. By L. J. Wilmoth. P. C. M & M Soc. S. A., vol. 10, p. 136. 5½ columns.
- THE USE OF THE BISULPHATE OF SODIUM IN THE CLEAN-UP. By J. E. Thomas and G. W. Williams. P. C. M & M. Soc. S A, vol 5, p. 334, 7 columns, vol. 6, p. 82, 4 columns; p. 113, ½ columns, p. 156, 3 columns.
- CYANIDE WORKS' CLEAN-UP PRACTICE. By J. E. Thomas. P. C M. & M, Soc. S. A, vol 7, p. 109, 3 columns; p. 181, 2½ columns, p. 211, 5 columns; p. 268, 1½ columns.
- NOTES ON LIME, CLEAN-UP, ETC. By G W. Williams. P. C. M. & M., Soc S. A, vol. 5, p. 251, 7½ columns; p. 314, 2 columns; vol. 6, p. 19, 4 columns, p. 51, 3 columns; p. 78, 5 columns
- SOME FURTHER IMPROVEMENTS IN APPLIANCES FOR THE CYANIDE CLEAN-UP. By D V Burnett P. C. M. & M. Soc. S A, vol. 5, p. 145, 5 columns, I.; p. 211, 1½ columns; p. 235, 2½ columns; p. 255, 1½ columns.
- CYANIDATION AT THE ALASKA-TREADWELL MINES By T. A. Rickard. Min Mag., London, vol. 3, p. 280. 2 columns
- CYANIDING CRIPPLE CREEK DUMPS. M & M., vol 29, p. 444 ½ column.
- CYANIDATION OF CRIPPLE CREEK ORES By P. Argall. Min & Sci. Press, vol 101, p. 804 3½ columns.
- CYANIDING AT THE MONTEZUMA MILL, COSTA RICA E. & M. J, vol 90, p. 716. 3 columns.
- CYANIDING AT THE NORTH STAR MINES, GRASS VALLEY. E. & M. J., vol 87, p. 440. 3 columns. I.
- CYANIDING AT THE NORTH STAR MINES IN CALIFORNIA. By J. Tyssowski. E. & M J, vol 90, p. 409. 8½ columns I
- CYANIDE PRACTICE AT THE HOMESTAKE MILLS. By F L Bosqui. Min & Sci Press, vol. 95, p. 21 4½ columns. I
- CYANIDING BLACK HILLS "BLUE ORES" By B. D O'Brien. M. & M, vol 29, p. 427. 9 columns.
- CYANIDING SILVER ORES IN HONDURAS By G. E Driscoll Min. & Sci. Press, vol. 98, p. 388 4½ columns I.
- RECENT CYANIDE PRACTICE IN KOREA. By A. E. Drucker. Min. & Sci. Press, vol. 97, p. 458. 6 columns
- CYANIDING AT MINAS DEL TAJO, SINALOA. E. & M. J., vol. 89. 7 columns. I.
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- DEVELOPMENT OF THE CYANIDE PROCESS FOR SILVER ORES IN MEXICO By B. Macdonald. E. & M. J., vol. 85, p 802 4½ columns
- CYANIDATION OF SILVER ORES AT GUANAJUATO, MEXICO By B. Macdonald E. & M. J., vol. 85, p 710. 23 columns. I
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- CYANIDING AT THE NEW ESPERANZA MILL, EL ORO, MEXICO. E. & M. J., vol 86, p. 760. 5 columns I.
- SILVER CYANIDING IN MEXICO E. & M. J., vol 86, p 846. ¾ column
- SILVER CYANIDING IN MEXICO By J. B. Empson. E. & M. J., vol 86, p 667 3½ columns
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Chlorination Processes

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Refining Gold and Silver

FLUXING OF GOLD SLIMES By C E. Mayer P. C M. & M Soc. S A, vol 5, p. 168, 4 columns, p. 211, 1½ columns, p 341, ½ column, vol. 6, p. 17, 1 column.

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BATTERY AND CYANIDE GOLD SMELTING By A. Thomas P. C M & M Soc S A, vol. 9, p 6, 6 columns; p 50, 2 columns; p. 120, 5 columns; p 162, 5½ columns; p 191, 4 columns

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THE TAVENER PROCESS By K. L Graham. P C M & M. Soc S A, vol 5, p. 315. 2 columns.

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Metallurgy of Iron and Steel

ABOUT SOME OF THE PROPERTIES OF STEEL By A E Hunt P. E. Soc W Pa, vol 2, p 271, 8 columns, p 251, 6 pages

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NOTE ON SOME CAUSES OF RED-SHORTNESS AND COLD-SHORTNESS IN IRON. By W Metcalf. P E. Soc. W Pa, vol. 2, p 217. 2 columns; p. 219, 2 columns.

- CRYSTALLIZATION OF IRON AND STEEL.** By A. M. Johnston. P. C. M. & M. Soc. S. A., vol. 10, p. 3. 15 columns.
- ON THE COMPOUNDS OF CARBON AND IRON, AND THEIR INFLUENCE ON THE PRODUCTION OF PIG IRON** By A. Gurlt. Min. Mag., vol. 8, p. 40, 7 pages; p. 123, 6 pages.
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- STEEL CASTINGS.** P. E. Soc. W. Pa., vol. 25, p. 333. 21 pages. I.
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- STEEL HARDENING METALS.** By J. H. Pratt. U. S. G. S., Mineral Resources, 1903, Mineral Resources, 1904, 58 pages.
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- THE UNIFORM NOMENCLATURE OF IRON AND STEEL:** Discussion of the Report of Committee 24 of the International Association for Testing Material, presented at the Brussels Congress, 1906, and republished in Bi-monthly Bulletin, No 20, March, 1908, pp. 227-237, but not included in this volume. T. A. I. M. E., vol. 39, p. 924. 6 pages.
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- THE DISTRIBUTION OF IRON BLAST FURNACES IN THE UNITED STATES.** E & M. J., vol 90, p. 160. Table and Map.
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- TOOL STEEL DIRECT FROM THE ORE IN AN ELECTRIC FURNACE** By A. Stansfield. J C. M. I., vol 13, p 151. 11½ pages. I.
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- THE ELECTROTHERMIC PRODUCTION OF STEEL FROM IRON ORE.** By A. Stansfield. J C. M. I., vol. 10, p. 127. 4½ pages.
- PROGRESS IN ELECTRO-SIDERURGY.** By P McN Bennie. J. C. M I, vol. 13, p. 135. 16 pages. I.

- THE TREATMENT OF STEEL IN ELECTRIC FURNACES By H. M. Howe. E. & M. J., vol. 88, p. 400. 21 columns. I.
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- REMARKS ON THE PROCESS FOR SMELTING LEAD. By A. Trippel. Min. Mag., vol. 4, p. 36. 12 pages.
- EARLY SMELTING AT CERRO GORDO. By F. Drake. Min. & Sci. Press, vol. 100, p. 745. 2½ columns.
- A PROPOSED NEW METHOD OF SMELTING LEAD CONCENTRATES. By H. F. Collins. T. A. I. M. E., vol. 4, p. 124. 7½ pages.
- HANDLING BLAST FURNACE BULLION AT THE SELBY SMELTING WORKS. By J. C. Bennett. E. & M. J., vol. 86, p. 83. 5 columns. I.
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- ALTERING THE CAPACITY OF A BLAST FURNACE By T. Kapp E. & M. J., vol. 90, p. 595. ¼ column.
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FIREDAMP: Its Composition, Detection and Estimation. By T. Gray. T. I. M. E., vol. 39, p. 286. 19 pages.

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DISCOVERY OF THE AMERICAN NETTIE MINE E. & M. J., vol. 90, p. 758 1½ columns

THE TRUE STORY OF THE CAMP BIRD DISCOVERY. E. & M. J., vol. 89, p. 1266 2½ columns.

DISCOVERY OF THE CAMP BIRD MINE By T. F. Walsh. E & M J, vol. 86, p. 223. 4 columns

EARLY COLORADO DAYS. By G. W. Maynard. Min & Sci. Press, vol. 98, p. 789. 7½ columns

MINES AND MILLS OF COLORADO By A. B. Paul Min & Sci Press, vol. 20, p. 18, 1½ columns; p. 34, ½ column; p. 50, ¾ column, p. 114, 1½ columns; p. 146, 1½ columns; p. 178, 1 column, p. 210, 1½ columns; p. 234, 1 column; p. 250, 1½ columns.

HISTORY OF IRON HILL, LEADVILLE E & M. J., vol. 89, p. 261 1 column.

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DISCOVERY OF THE GOLD ROAD MINE. By J. C. Kennedy. Min. & Sci. Press, vol. 101, p. 773. 1½ columns.

HISTORICAL RÉSUMÉ OF THE COPPER QUEEN MINE. E & M J, vol. 87, p. 409. 6 columns

EARLY COPPER MINING IN THE PROVINCE OF QUEBEC. By J. Douglas. J. C. M I, vol. 13, p. 254. 19 pages.

THE COPPER AND IRON REGION OF LAKE SUPERIOR. Min. Mag., vol. 1, p. 261. 7½ pages.

HISTORY OF THE OLDEST COPPER MINE IN AMERICA. M & M., vol. 31, p. 235. 10½ columns. I.

DISCOVERY OF IRON AND COPPER IN THE LAKE SUPERIOR REGION. T. L. S. M. I., vol. 14, p. 22. 3 pages.

HISTORICAL SKETCH OF COPPER MINING ON LAKE SUPERIOR. By A. Meads. T. L. S. M. I., vol. 14, p. 202. 2 pages. I.

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See also OCCURRENCE OF COPPER AND COPPER ORES.

THE STORY OF THE BINGHAM CANYON. By H. W. MacFarren. Min. & Sci. Press, vol. 99, p. 129. 3½ columns. I.

THE MINING HISTORY OF MOUNT LYELL, AUSTRALIA. T. A. I. M. E., vol. 10, p. 41. 14 pages.

ROUND MOUNTAIN MINES AND HISTORY, NEVADA. By J. P. Loftus. Min. & Sci. Press, vol. 99, p. 568. 1½ columns. I.

OLD METHODS IN MEXICO. Min. & Sci. Press, vol. 95, p. 372. 4 columns.

HISTORY OF THE EL TIGRE MINE, MEXICO. M & M., vol. 29, p. 483. 3 columns.

COAL MINING BY THE MONKS IN ENGLAND. By J. B. Simpson. T. I. M. E., vol. 39, p. 573. 28 pages.

REMINISCENCE OF MINING IN CORNWALL. By J. Vivian. Min. & Sci. Press, vol. 100, p. 743. 4½ columns.

HISTORY OF THE BARBERTON GOLDFIELD. P. C. M. & M. Soc. S. A., vol. 10, p. 122. 10 columns. I.

See also AFRICA.

HISTORY AND REVIEW OF THE NITER INDUSTRY OF CHILE. By M. R. Lamb. E. & M. J., vol. 90, p. 18. 14½ columns. I.

HISTORY OF THE COAL FIELDS OF CHILE. T. I. M. E., vol. 38, p. 31. 3 pages.

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GOLD MINES OF TIBET. By A. Del Mar. Min. & Sci. Press, vol. 100, p. 254. 3½ columns.

THE LED MULE LODE. E. & M. J., vol. 89, p. 1146. 1 column.

WASHED HIS HOME FOR GOLD: A CURIOUS INCIDENT AS TO DISCOVERY OF GOLD. M. & M., vol. 31, p. 677. Note.

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DUTIES OF A MINE FOREMAN IN THE BITUMINOUS FIELDS OF PENNSYLVANIA. M & M., vol. 29, p. 94. ½ column.

MINE INSPECTION. By C. De Kalb. Min. & Sci. Press, vol. 99, p. 497. 4 columns.

INSPECTION OF MINES. By J. A. Holmes. Min. & Sci. Press, vol. 99, p. 499. 1½ columns.

ANTHRACITE MINE INSPECTION. By L. M. Evans. Coal Mining Supplement, E. & M. J., vol. 88, p. 20. 4½ columns.

MINE INSPECTION IN UTAH MINES. By A. C. Watts. M. & M., vol. 30, p. 324. 4½ columns.

MINE INSPECTION IN GREAT BRITAIN. M. & M., vol. 30, p. 316. 2½ columns.

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PROSPECTING FOR PHOSPHATE ROCK. By F. F. Wilson, Jr. E & M. J., vol 86, p 1148. 1 column

THE PROSPECTOR AND HIS FRIENDS. Min & Sci. Press, vol 95, p. 680. 2 columns. I.

THE AMERICAN PROSPECTOR IN MEXICO AND HIS PROBLEMS By T. Chase E. & M J, vol 87, p. 694. 2 columns.

SINKING TEST PITS. E & M. J., vol. 88, p 328 $\frac{1}{2}$ column.

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PROSPECTING, DEVELOPING AND MINING. By R. W. Brock. Min & Sci Press, vol. 100, p 860. 2 $\frac{1}{2}$ columns

HUNTING METALS FOR THEIR HIDES. By H. W. Hixon E & M. J., vol. 88, p. 168. 5 $\frac{1}{2}$ columns

CHANCES FOR THE PROSPECTOR By H. H Edgerton Min. & Sci Press, vol. 98, p. 479. 2 $\frac{1}{2}$ columns.

PROSPECTING FOR GOLD. M. & M, vol 30, p. 277. 1 $\frac{1}{2}$ columns.

PROSPECTING IN CHIHUAHUA, MEXICO By R. H. Burrows. Min. & Sci. Press, vol. 100, p. 392. 4 columns I.

A SCIENTIFIC SEARCH FOR A NEW GOLDFIELD By R. T. Hill. E & M. J., vol. 86, p. 1157. 9 columns. I

PROSPECTING FOR ORES OF THE GOLDFIELD TYPE By J V Lewis E & M J., vol. 87, p. 1121 2 $\frac{1}{2}$ columns.

PROSPECTORS AND PROSPECTING IN NEVADA By R. T. Hill. E & M J., vol. 86, p. 1053. 3 $\frac{1}{2}$ columns.

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PROSPECTING POVERTY GULCH CLAIMS. M. & M, vol. 31, p 694. 7 columns I.

TESTING PLACER GROUND E & M J., vol. 87, p. 223 2 $\frac{1}{2}$ columns.

PROSPECTING AND MINING GOLD PLACERS IN ALASKA. By J. P Hutchins U. S G S., Bull 345, p. 54 24 pages 1907.

DISCOVERY OF PLACER GOLD. E & M J., vol. 88, p. 103. 2 columns.

TESTING PLACERS IN KOREA. By R. Y. Hadlon. Min & Sci Press, vol 101, p 475. 2 columns. I

See also AURIFEROUS GRAVELS and HYDRAULIC MINING.

PROSPECTING FOR COAL. By B. Halberstadt. M. & M, vol 30, p 454. 4 $\frac{1}{2}$ columns. I

PROSPECTING ANTHRACITE MINES BY DRILL HOLES. By F. Lynde. E & M. J., vol. 88, p 258. 9 columns I.

SYSTEMATIC EXPLORATION IN THE PITTSBURG COAL-SEAM. By F. Z. Schellenberg T A I M. E, vol 41, p. 225 12 pages I

PROSPECTING DISSEMINATED COPPER ORE DEPOSITS. By C R. Keyes. E & M J, vol. 90, p. 1055 4 $\frac{1}{2}$ columns

PROSPECTING IN THE MESABI IRON RANGE M. & M, vol 29, p. 293. 2 columns.

PROSPECTING FOR TIN ON CAPE PRINCE OF WALES. Min. & Sci Press, vol 95, p. 746. $\frac{1}{2}$ column

PROSPECTING FOR TIN IN SIAM By G B Adeney. Min Mag, London, vol 3, p 287. 2 columns. I.

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PROSPECTING IN SIBERIA. Min & Sci Press, vol. 20, p. 354. 1 column.

PROSPECTING IN THE NORTH. By H. V. Winchell. Min. Mag., London, vol. 3, p. 436. 4½ columns.

PROSPECTING IN CHINA. By G. F. Ober. Min. Mag. London, vol. 4, p. 223. 1½ columns

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USE OF THE DIVINING ROD. Min & Sci. Press, vol. 95, p. 500. ½ column.

THE DIVINING ROD. Min & Sci Press, vol. 101, p. 711. ½ column

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MINING DISCOVERY: The Divining Rod. Min. Mag., vol. 10, p. 51. 3 pages.

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THE PROFESSIONAL EXAMINATION OF UNDEVELOPED MINERAL PROPERTIES. By C. Catlett. T. A. I. M. E., vol. 39, p. 774. 8½ pages.

TO DETERMINE THE VALUE OF A MINE. Min. Mag., vol. 1, p. 607. 6 pages.

PRESENT VALUE OF MINES. P. C. M. & M. Soc. S. A., vol. 5, p. 185 ½ column

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CALCULATION OF MINE-VALUES. By R. B. Brinsmade. T. A. I. M. E., vol. 39, p. 243. 7 pages

THE VALUATION OF MINING AREAS ON THE RAND. By W. F. Wilkinson. T. I. M. & M., vol. 18, p. 348. 6 pages

GRAPHIC METHODS FOR MINE VALUATION. By H. C. Jenkins. Min. Mag., London, vol. 2, p. 287. 6 columns. I

THE COMPUTATION OF THE PRESENT VALUE OF DEVELOPED AND UNDEVELOPED MINES. By W. H. Goodchild. T. I. M. & M., vol. 18, p. 367. 46 pages. D.

ORE-VALUATION OF GOLD MINES. T. A. I. M. E., vol. 39, p. 685. 9 pages. I

See also VALUE OF ORE AND ITS DETERMINATION.

ESTIMATE OF TONNAGE OF ORE AND STRIPPING. M. & M., vol. 29, p. 344. 11 columns.

COMPUTING TONNAGE FROM VOLUME OF ORE REMOVED. By S. L. Lefevre and G. C. Stoltz. E. & M. J., vol. 87, p. 350. 1¼ columns. I.

THE VALUATION OF PUBLIC LANDS: The Value of Coal Land. By G. H. Ashley. U. S. G. S., Bull. 424. 75 pages. 1910.

DEPTH AND MINIMUM THICKNESS OF BEDS (COAL) AS LIMITING FACTORS IN VALUATION. By C. A. Fisher. U. S. G. S., Bull. 424. 75 pages. 1910.

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PLACER EXAMINATIONS. By A. Lakes. M. & M., vol. 29, p. 540. 7½ columns. I

CALCULATING VALUE IN PLACER GROUND. By O. H. Packer. Min. & Sci. Press, vol. 101, p. 810. 3½ columns. D.

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EXAMINATION OF PETROLEUM PROPERTIES. By C. Jarin. Min & Sci. Press, vol 101, p 269 3½ columns.

SELLING A MINE E & M. J., vol. 88, p. 79. 2½ columns.

ORE RESERVES IN MINING Min. & Sci Press, vol 101, p 410. 2 columns.

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Permanence in Depth

PERMANENCY IN DEPTH. Min & Sci. Press, vol. 96, p. 13. 1 column.

RATIO OF VALUE TO DEPTH. Min & Sci Press, vol. 101, p. 495. ¾ column.

PERSISTENCE IN DEPTH OF TREADWELL ORES. U. S. G. S., Bull. 259, p 79. ½ page.

THE FACTORS THAT CONTROL THE DEPTH OF ORE DEPOSITS By J. W. Gregory T. Au. I. M. E., vol. 8, pt. 2, p. 127. 28 pages.

LIVES OF MINES. Min & Sci Press, vol. 97, p. 456. 2½ columns.

LIFE OF RAND MINES E. & M. J., vol 90, p 543 1 column

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PROBABLE DEPTH TO WHICH MINING CAN BE CARRIED. P. C. M. & M. Soc S A., vol. 8, p 47. 2 columns.

DEPTH OF ORE AT GOLDFIELD. Min. & Sci Press, vol 96, p. 62 ¾ column.

PERSISTENCY OF THE ORE IN THE NORTH CAROLINIAN GOLD BELT. E. & M J., vol. 87, p. 296. 2 columns

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- DEVELOPMENT OF A SLOPE MINE M. & M., vol. 30, p. 340. Map.
- SIZE AND DEPTH OF SOME SHAFTS IN AMERICA. M. & M., vol. 29, p. 392. $\frac{1}{2}$ column.
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- ELLIPTICAL VS. RECTANGULAR SHAFTS. By W. A. Weldin. M & M., vol. 31, p. 167. 5 columns. I
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- SYSTEMATIC DEVELOPMENT IN PITTSBURG SEAM. By F. Z. Schellenberg. E & M. J., vol. 90, p. 521. 11 columns. I.
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- DEVELOPMENT AT THE COMBINATION MINE Min. & Sci. Press, vol. 95, p. 435. 6 columns. I
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- See also DEEP MINING.
- DEVELOPMENT IN THE RAND MINES. P. C. M. & M. Soc. S. A., vol. 9, p. 86, 1 column, I.; p. 89, 9 columns, I.

METHOD OF DEVELOPING THE PILGRIM'S REST PROPERTY P. C. M. & M Soc. S. A., vol. 9, p. 296. $\frac{1}{2}$ column I.

DEVELOPMENT OF THE ST. JOHN DEL REY MINES IN BRAZIL. Min. Mag., London, vol. 3, p. 465. 1 column. I.

DEVELOPMENT OF THE EUGENE MINE, KOOTENAY, BRITISH COLUMBIA. E. & M J, vol. 89, p. 420. 1 column I.

THE DEVELOPMENT OF AN ORE SHOOT IN NOVA SCOTIA By E. P. Brown. J. M Soc. N S, vol. 12, p. 57. $4\frac{1}{2}$ pages. I.

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DEVELOPMENT IN THE MEXICAN MINE, COMSTOCK LODE Min & Sci Press, vol. 100, p. 420 2 columns. I.

RECENT WORK ON THE COMSTOCK. By W D O'Brien. Min. & Sci Press, vol. 96, p. 804. $4\frac{1}{2}$ columns. I.

METHOD OF DEVELOPMENT EMPLOYED AT THE LOS PILARES MINE, MEXICO M & M, vol. 31, p. 107. 1 column. I.

DEVELOPMENT AT THE ESPERANZA MINE, EL ORO, MEXICO. By W E. Hindry. Min & Sci Press, vol. 99, p. 822. 7 columns I

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MODERN SHAFT SINKING. By F Donaldson M. & M., vol. 29, p. 392, $3\frac{1}{2}$ columns; p. 459, 10 columns, I, p. 515, $7\frac{1}{2}$ columns, I; p. 563, $6\frac{1}{2}$ columns, I; vol. 30, p. 124, $9\frac{1}{2}$ columns, I; p. 218, $5\frac{1}{2}$ columns, I; p. 332, $5\frac{1}{2}$ columns, I; p. 404, $5\frac{1}{2}$ columns, I; p. 632, $5\frac{1}{2}$ columns, I.

SHAFT SINKING. By C K. Colvin. Min. & Sci. Press, vol. 85, p. 191. 2 columns

IMPROVED SHAFT SINKING METHODS AT DUCKTOWN. By W. Y. Westervelt. E. & M J., vol. 89, p. 275. $3\frac{1}{2}$ columns I

NOTES ON VERTICAL SHAFT SINKING ON THE WITWATERSRAND. By H. F. Roche. P C. M & M. Soc. S. A., vol. 5, p. 200, 8 columns, I; p. 259, $7\frac{1}{2}$ columns; p. 312, $3\frac{1}{2}$ columns; vol. 6, p. 17, 3 columns.

SINKING THE WOODWARD No. 3 SHAFT. By R. V. Norris E. & M J, vol. 89, p. 1182 $12\frac{1}{2}$ columns. I

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SHAFT SINKING AT THE GIROUX, ELY, NEVADA. Min. & Sci Press, vol. 100, p. 826 $1\frac{1}{2}$ columns.

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THE SINKING OF THE ASTLEY GREEN SHAFTS, AT ASTLEY, NEAR MANCHESTER, BY MEANS OF THE DROP-SHAFT METHOD AND UNDERHANGING TUBBING. By C. Pilkington and P. L. Wood. T. I. M. E., vol. 39, p. 529. 25 pages. I.

- SHAFT SINKING AT STELLA MINE, NEW YORK.** E. & M. J., vol. 88, p. 617. 2 columns. I.
- SINKING THE JOHN SHAFT AT HAMSTERLEY COLLIERY, THROUGH SAND AND GRAVEL, BY MEANS OF UNDERGROUND TUBBING** By J. Cummins. T. I. M. E., vol. 38, p. 320. 13 pages. I
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- SINKING THROUGH BAD GROUND.** By F. W. Adgate. Min. & Sci. Press, vol. 95, p. 183. 4½ columns. I
- SHAFT SINKING IN SOFT GROUND BY FORE-POLING.** M. & M., vol. 29, p. 515. 2 columns. I.
- SHAFT SINKING THROUGH FAULTED GROUND.** E. & M. J., vol. 87, p. 215. 1½ columns.
- SHAFT SINKING IN DANGEROUS GROUND.** Min. Mag., London, vol. 2, p. 293. 2 columns: I
- SINKING A WET SHAFT AT TOMBSTONE.** By E. W. Walker. Min. & Sci. Press, vol. 98, p. 284. 3 columns. I.
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- See also **SHAFT LINING.**
- PUDDLING A WET SHAFT.** By H. Bour-sin. Min. & Sci. Press, vol. 96, p. 127. 2½ columns. I.
- SINKING A SHAFT WITH DROP-SHAFT AND AIR-LOCK.** Sch. Mines Quart., vol. 31, p. 219. 5 pages. I.
- THE DROP-SHAFT METHOD OF SINKING.** E. & M. J., vol. 90, p. 918. 4½ columns. I.
- SHAFT SINKING BY CAISSONS OR DROP-SHAFTS.** M. & M., vol. 29, p. 517. 3½ columns. I.
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- DRIVING A LONG VERTICAL RAISE.** By C. T. Kriebel. M. & M., vol. 30, p. 282. 2 columns. I.
- SINKING A WINZE WITH LONG HOLES.** By G. C. McFarlane. E. & M. J., vol. 86, p. 713. 1½ columns. I.
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- THE USE OF THE CHANNELING MACHINE IN MINING OPERATIONS: A Proposed Method.** Min. & Sci. Press, vol. 101, p. 707. 5 columns. I.
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- METHOD OF MINING COAL IN WASHINGTON** M & M, vol. 30, p. 17. ½ column. I.
- METHODS OF MINING COAL IN WEST VIRGINIA.** M. & M., vol. 29, p 509. 11½ columns. I.
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- METHOD OF MINING THE DEEP LEAD IN AUSTRALIA. By D. H. Browne. Min. & Sci. Press, vol. 97, p. 568. 2 columns.
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- MINING METHOD IN THE CŒUR D'ALENE REGION. Min. & Sci. Press, vol. 96, p. 622. 4 columns. I.
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THE CAVING METHOD AS EMPLOYED AT THE CONSOLIDATED MERCUR MINES. E & M J, vol 89, p. 1273. 13 columns. I.

CANANEA CAVING AND SLICING SYSTEMS. By R L Herrick M & M, vol. 30, p 23. 13½ columns. I

TOP-SLICING MINING METHODS AT CANANEA, MEXICO. By C. De Kalb. Min & Sci Press, vol. 101, p. 230. 2½ columns. I.

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THE MITCHELL SLICING SYSTEM AT BISBEE, ARIZONA By M. J. Elsing. E. & M. J., vol. 90, p. 174. 6 columns. I.

THE MITCHELL SLICING SYSTEM AT BISBEE, ARIZONA. E. & M. J., vol. 90, p. 1291 2½ columns

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BLOCK-CAVING AT THE CLIFTON-MORENCI MINES. Min. & Sci. Press, vol. 101, p. 835. 1 column. I

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THE PNEUMOELECTRIC COAL PUNCHER. E. & M. J., vol 86, p. 580. 4½ columns. I.

See also **BREAKING DOWN COAL AT THE FACE, MINING MACHINES AT THE FACE, and COST OF COAL MINING.**

**Mechanical Mining Appliances:
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M. & M., vol. 30, p. 158 2 columns. I.

THE HYDRAULIC MINING CARTRIDGE.
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p. 586. 2½ columns. I.

THE HYDRAULIC MINING CARTRIDGE.
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MINE SUPPORT**Mine Support: Conditions Affect-
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DATA OF PETRODYNAMICS. By R. D.
N. Hall. M. & M., vol. 31, p. 505.
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DATA OF PETRODYNAMICS. By R. D.
N. Hall. M. & M., vol. 31, p. 210.
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Method of Calculation By F.
Lynde E. & M. J., vol. 89, p. 1188.
4 columns. I.

THE DOME OF EQUILIBRIUM AND THE
CAVING SYSTEM OF MINING. By C.
T. Rice. Min. & Sci. Press, vol. 95,
p. 85 2½ columns.

See also THE CAVING SYSTEMS OF
MINING.

PRESSURE OF SUPERINCUMBENT STRATA
IN THE TRANSVAAL MINES. Min. &
Sci. Press, vol. 101, p. 333. 2 col-
umns.

ROCK PRESSURE AND METAMORPHISM.
By H. M. Chance. Min. & Sci.
Press, vol. 97, p. 299. 6 columns.

MINE SUPPORT TESTS IN THE ANTHRA-
CITE FIELDS, PENNSYLVANIA. M. &
M., vol. 31, p. 749. 5½ columns. I.

STEEL HAMMER AND PICK FOR TESTING
ROOF. M. & M., vol. 29, p. 79.
½ column. I.

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CHAMBERS IN LIGNITE MINES. M.
& M., vol. 29, p. 255. I.

MINE SUPPORT IN THE MINES OF
BOICZA, HUNGARY Min. & Sci.
Press, vol. 100, p. 34. ½ column

DAMAGE TO SURFACE BUILDINGS
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INGS. By W. Hay. T. I. M. E.,
vol. 36, p. 427. 9 pages. I.

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INGS.

SUPPORTING THE ROOF IN LONGWALL
WORKING IN ENGLAND E. & M. J.,
vol. 85, p. 1146. 1 column. I.

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Kinds of Support, Timbers, Etc.

LUMBER: Kinds of Timber, Etc By
F. R. Babcock. P. E. Soc. W. Pa.,
vol. 26, p. 187. 16 pages.

EUCALYPTUS FOR MINE TIMBERS. By
A. H. Martin. Min. & Sci. Press,
vol. 97, p. 527, 1 column; p. 870,
2 columns.

MINING TIMBER, ITS USE AND PRESER-
VATION. By H. W. Ferd. T. Au.
I. M. E., vol. 5, p. 3. 4 pages

See also PRESERVATION OF MINE TIM-
BER

TIMBER AND MINE COSTS. Min. &
Sci. Press, vol. 96, p. 504. 1½ col-
umns.

See also COST OF TIMBER.

SOME METHODS OF TIMBERING AND
WORKING WIDE LODES IN NEW
SOUTH WALES By J. R. Godfrey.
T. Au. I. M. E., vol. 7, p. 193.
22 pages. I.

SAFE METHODS OF TIMBERING. T. Au.
I. M. E., vol. 6, p. 25. 3 pages I.

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SELECTION AND FRAMING OF TIMBER.

By W. L. Fleming E. & M. J., vol. 88, p. 423 $2\frac{1}{2}$ columns. I.

TIMBER CUTTING ON FOREST RESERVES FOR MINING PURPOSES E & M. J., vol. 87, p. 639. $\frac{1}{2}$ column.

HOW REFORESTATION MAY BE APPLIED TO THE MINE TIMBER INDUSTRY. By T. B. Wyman. T. L. S. M. I., vol. 14, p. 116 $13\frac{1}{2}$ pages. I.

USE OF TIMBER CRIBS IN THE AUSTRALIAN MINES T. A. I. M. E., vol. 7, p. 193. 20 pages. I.

TIMBER SUPPLY FOR MONTANA MINES. M. & M., vol. 29, p. 92. $1\frac{1}{2}$ columns.

REINFORCED CONCRETE MINE PROPS. E & M. J., vol. 89, p. 1076. 1 column

See also **USE OF CONCRETE IN MINES.**

STEEL SUPPORTS IN COAL MINES By R. B. Woodworth M. & M., vol. 31, p. 387. 7 columns. I.

See also **STRENGTH OF TIMBER, MASONRY, ETC., and COST OF SUPPORT.**

Strength of Timber, Masonry, Coal and Iron for Mine Support

THE STRENGTH OF MINE ROOFS By R. D. N. Hall. M & M, vol. 30, p. 474. 3 columns. I.

APPLICATION OF STEEL TO MINE TIMBERING. By R. B. Woodworth. Min & Sci. Press, vol. 99, p. 462. 10 columns.

PILLARS IN TREADWELL MINES. Min. & Sci. Press, vol. 97, p. 85. $\frac{1}{2}$ column. I.

SOME GERMAN MINE PROPS: Adjustable Forms. E & M. J., vol. 88, p. 413. 5 columns. I.

ADJUSTABLE MINE SUPPORT E. & M. J., vol. 86, p. 1260. $\frac{1}{2}$ column. I.

PACKWALLS AND PIGSTIES FOR SUPPORT ON THE RAND. P. C. M. & M. Soc. S. A., vol. 10, p. 277 $2\frac{1}{2}$ columns. I.

Subsidence in Mine Workings

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CONTINUED TROUBLE OVER ANTHRACITE MINE CAVE-INS E & M. J., vol. 89, p. 580 1 column.

THE PROTECTION OF THE SURFACE ABOVE ANTHRACITE MINES. E & M. J., vol. 89, p. 167. $1\frac{1}{2}$ columns

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CAVES IN THE JOPLIN LEAD AND ZINC REGION, MISSOURI T. A. I. M. E., vol. 38, p. 331. 2 pages.

MINE SUBSIDENCE By A. Richardson. P. C. M. & M. Soc. S. A., vol. 7, p. 279, 19 columns, I; p. 325, 9 columns; p. 362, 10 column; vol. 8, p. 16, $3\frac{1}{2}$ columns; p. 46, 10 columns.

SURFACE AND UNDERGROUND SUBSIDENCE IN COAL MINING T. I. M. E., vol. 37, p. 691. $\frac{1}{2}$ page

UNWATERING OF STRATA AND SUBSIDENCES IN THE RENISH-WESTPHALIAN COAL FIELD. T. I. M. E., vol. 37, p. 691. 1 page.

SLIPS AND SUBSIDENCES. Earthwork and Its Cost, Chap 18, p. 184.

SUBSIDENCE IN UNDERGROUND MINES. By A. Richardson. E & M. J., vol. 84, p. 196. $10\frac{1}{2}$ columns. I.

THE EFFECT PRODUCED UPON BEDS OF COAL BY WORKING AWAY THE OVER- OR UNDERLYING SEAMS. By G. Elliot Min. Mag, vol. 9, p. 333. $4\frac{1}{2}$ pages.

See also **PROTECTION IN MINING, and MINE SUPPORT: CONDITIONS AFFECTING.**

Size of Pillars, Barrier Pillars, Etc.

BARRIER PILLARS, "SENZIE" WALLS, WEMYSS COAL FIELDS, ENGLAND.

T. I. M. E., vol. 36, p. 563. Note.

SIZE OF ROOMS AND PILLARS. E. & M. J., vol. 90, p. 871. Table.

SIZE OF PILLARS TO BE LEFT IN MINES. M. & M., vol. 29, p. 375. $\frac{1}{2}$ column.

STRENGTH OF PILLARS P. C. M. & M. Soc. S. A., vol. 8, p. 49. $1\frac{1}{2}$ columns.

COLLAPSE OF SHAFT PILLARS. P. C. M. & M. Soc. S. A., vol. 10, p. 279. 1 column

FAILURE OF MINE PILLARS P. C. M. & M. Soc. S. A., vol. 8, p. 50 1 column.

USE OF PILLARS IN THE RAND MINES. P. C. M. & M. Soc. S. A., vol. 10, p. 279. $\frac{1}{2}$ column I.

See also **STRENGTH OF TIMBER, ETC.**

Methods of Timbering

ON TIMBERING MINES Min Mag, vol. 9, p. 330 $2\frac{1}{2}$ pages.

EXAMPLES OF MINE TIMBERING. By W. H. Vale T. Au. I. M. E., vol. 8, pt. 2, p. 268. 8 pages. I.

TIMBERING AND ITS IMPORTANCE IN MAKING ESTIMATES OF COST. By R. James. T. Au. I. M. E., vol. 7, p. 84. 10 pages.

USE OF PROPS IN THE RAND MINES. P. C. M. & M. Soc. S. A., vol. 10, p. 278. 1 column. I.

TAPERED TIMBER PROPS. P. C. M. & M. Soc. S. A., vol. 9, p. 369. $1\frac{1}{2}$ columns.

TAPERED TIMBER. By P. Horan. T. I. M. E., vol. 37, p. 135. 12 pages. I.

REINFORCED TIMBER CAP E. & M. J., vol. 86, p. 427. $\frac{1}{2}$ column I.

COMBINATION OF STEEL AND WOOD MINE TIMBERS. E. & M. J., vol. 90, p. 1293. 1 column. I.

DRAWING TIMBERS IN THICK COAL. SEAM WORKING E. & M. J., vol. 86, p. 15. 2 columns

MINE TIMBERING IN FRANCE. E. & M. J., vol. 88, p. 1172. 1 column. I.

SADDLE-BACK STULLS Min. & Sci. Press, vol. 96, p. 782. $\frac{1}{2}$ column. I.

"SADDLE-BACK" TIMBERING IN AUSTRALIAN MINES T. I. M. & M., vol. 18, p. 293. 1 page. I

See also **TUNNEL SUPPORT.**

STOPE TIMBERING M. & M., vol. 31, p. 29 $\frac{1}{2}$ column

STULL-SETS FOR WIDE LODES T. I. M. & M., vol. 18, p. 308 2 pages. I.

NOTES ON PLACING AND CUTTING STULLS E. & M. J., vol. 88, p. 572. 2 columns. I.

TIMBERING WIDE STOPES. E. & M. J., vol. 88, p. 376 1 column. I.

METHODS OF TIMBERING IN STOPES, THE MOUNT MORGAN MINE. E. & M. J., vol. 87, p. 638. 1 column I.

See also **METHODS OF STOPING.**

RETIMBERING OF THE KEARSARGE SHAFT. By L. Fraser Min. & Sci. Press, vol. 95, p. 432. $2\frac{1}{2}$ columns. I.

A METHOD FOR SETTING TIMBER IN INCLINED SHAFTS. By C. W. McDougall. E. & M. J., vol. 87, p. 656. $2\frac{1}{2}$ columns. I.

See also **SHAFT LINING.**

TIMBERING IN THE JOPLIN DISTRICT. By L. L. Wittich. M. & M., vol. 31, p. 144. 4 columns. I

METHOD OF TIMBERING IN THE PILGRIM'S REST MINES. P. C. M. & M. Soc. S. A., vol. 9, p. 297. 1 column. I.

A METHOD OF TIMBERING AT THE MOUNT REX TIN MINE, BEN LOMOND, TASMANIA. By Mark Ireland. T. Au. I. M. E., vol. 10, p. 261. 1 page.

METHODS OF TIMBERING EMPLOYED AT THE BROKEN HILL MINES, NEW SOUTH WALES. E. & M. J., vol. 86, p. 799. 1 column. I.

- METHOD OF TIMBERING IN THE CARMAUX COAL MINES OF FRANCE** E. & M. J., vol 86, p. 577 2 columns. I.
- MASONRY AND TIMBERING IN BELGIAN MINES.** E & M. J., vol 88, p. 1172. Note. I
- TIMBERING WORKING PLACES IN THE PITCHING SEAMS, HAZLETON DISTRICT.** Coal Mining Supplement, E. & M. J., vol. 88, p 27. 1 column. I
- TIMBERING IN INDIAN COAL MINES.** M. & M., vol 31, p. 179. $\frac{1}{2}$ column I
- TIMBERING ROOMS IN GERMANY.** E. & M. J., vol 88, p. 1172. $\frac{1}{2}$ column. I.
- FOREPOLING IN THE ANTHRACITE MINES.** E. & M J, vol 86, p. 477. 1 column
- FOREPOLING IN HEAVY GROUND.** E. & M. J, vol. 88, p. 375. 2 columns. I.
- FALSE SET FOR SPILING GROUND.** By J. Humes. E. & M J, vol 89, p. 698 3 $\frac{1}{2}$ columns. I.
- See also **SHAFT SINKING, and METHODS OF TUNNELING.**
- CORNISH METHODS OF MINING: Timbering.** By G. P. Chaplin T. F. I. M. E., vol 13, p. 200. 10 pages. I.
- See also **USE OF CONCRETE IN MINES, and COST OF SUPPORT**
- Tunnel Support**
- METHOD OF TIMBERING EMPLOYED IN THE HOSMER MINES, TUNNEL** J. C. M. I., vol. 13, pp. 238 and 239. I.
- TIMBERING OF DRIFTS IN THE ESPERANZA MINE, EL ORO, MEXICO.** Min. & Sci. Press, vol. 99, p. 822. 1 $\frac{1}{2}$ columns. I.
- DRIFT TIMBERING FOR HEAVY GROUND.** E. & M. J., vol. 89, p 1101 1 column. I.
- EUROPEAN METHODS OF ENTRY TIMBERING.** By H. M. Payne. E. & M J, vol 88, p. 1172. 2 $\frac{1}{2}$ columns. I.
- TIMBERING A SLOPE: Anthracite Mines of Pennsylvania** Coal Mining Supplement, E. & M. J., vol. 88, p. 25. 2 columns I.
- LINING THE LOS ANGELES TUNNEL WITH CONCRETE** Min. & Sci Press, vol. 100, p 682. 1 column
- THE USE OF STEEL SUPPORTS IN COAL MINES.** By R. B. Woodworth. E & M J, vol. 85, p. 602. 7 columns. I.
- SPECIAL FORMS OF STEEL FOR MINE SUPPORT** P E Soc. W Pa., vol 24, p. 40. 50 pages. I.
- STEEL SUPPORTS FOR MINE DRIFTS.** By R B Woodworth E & M. J, vol. 85, p. 1196 3 columns. I
- INTERLOCKING STEEL MINE SUPPORTS: Particularly Mine Sets for Entries.** M. & M., vol. 31, p. 664. 1 $\frac{1}{2}$ columns I.
- See also **USE OF CONCRETE IN MINES, and KINDS OF SUPPORT, TIMBER, ETC.**
- See also **COST OF MINE AND MILL CONSTRUCTION**
- Shaft Lining: Timbering, Tubbing, Cementation, Etc.**
- METHODS OF SHAFT TIMBERING AT THE SUPERIOR AND BOSTON MINE, ARIZONA.** M. & M., vol. 31, p 114. 1 column. I.
- TIMBERING OF A SIX-COMPARTMENT SHAFT.** T. A. I. M. E., vol 41, pp. 537, 538 and 539. I.
- SHAFT TIMBERING: The Giroux Shaft, Kimberly, Nevada.** E. & M. J., vol. 89, p. 1325. 5 columns. I.
- TIMBERING IN THE CLONAN SHAFT, MINEVILLE, NEW YORK.** E. & M. J., vol. 85, p. 111. 1 column. I.
- METHOD OF TIMBERING THE ALLAN SHAFTS NEAR STELLARTON, NOVA SCOTIA.** J M Soc. N. S., vol. 12, p 17. 1 page I.

COLLAR AT NO 1 ALLAN SHAFT, STEELARTON, NOVA SCOTIA. By H E Coll J M. Soc. N. S., vol. 13, p. 69. 6 pages.

SETTING OUT INCLINED SHAFT TIMBERS By D J Browne. J C M. I., vol. 13, p. 455. 9 pages. I.

LINING-UP TIMBERS IN INCLINED SHAFTS. By B J Case. E & M J., vol. 86, p. 612 3½ columns. I

RECLAIMING THE INCLINED HOISTWAY AT MINE 21, MINEVILLE, NEW YORK. By G C. Stoltz E & M J., vol. 87, p. 600 5 columns. I

STEEL SHAFT SETS ON THE MESABI RANGE By F. A Kennedy. E & M. J., vol. 89, p. 206. 1 column. I

STEEL FORMS FOR SHAFT LINING Min. & Sci. Press, vol. 100, p. 529. ½ column.

SHAFT TIMBERING BRAKPAN, TRANSVAAL, SOUTH AFRICA. By E M. Weston. E. & M. J., vol 85, p 551. 5 columns. I.

UNDERGROUND STEEL CONSTRUCTIONS: Particularly Mine Shafts By R. B. Woodworth T L S M. I., vol 15, p. 45. 55 pages I.

STEEL MINE SHAFT CONSTRUCTION. By R. B. Woodworth. M. & M., vol. 31, p. 516. 10½ columns. I.

AN IMPROVED SWINGING STAGE: Shaft Lining Device. E. & M J., vol. 86, p 217. 1 column. I.

GUIDING A DROP-SHAFT E & M. J., vol 90, p. 498. 2 columns. I.

See also **SHAFT SINKING.**

AN ACCOUNT OF THE METHOD EMPLOYED IN STOPPING AN EXTENSIVE LEAK, UNDER HIGH PRESSURE, IN THE TUBBING OF THE EAST PIT, MURTON COLLIERY, 1907. By W. O Wood. T. I. M E., vol 38, p. 568 8½ pages. I.

REPAIRING A CAST-IRON SHAFT LINING E & M J., vol. 88, p. 1185. 1½ columns. I.

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Square-Set Timbering

THE PORTLAND SQUARE-SET SYSTEM. E. & M J., vol. 85, p 102. 3 columns. I.

LEANING STOPE SETS. E. & M J., vol 90, p. 8 1½ columns. I.

PLACING SILLS BENEATH SQUARE-SETS ALREADY IN PLACE E & M. J., vol 90, p. 501 2½ columns. I.

SQUARE-SETTING IN THE CLIFTON-MORENCI MINES. Min & Sci. Press, vol 101, p. 832 2½ columns. I.

SQUARE-SET MINING OR A MODIFICATION OF IT. By C. T. Rice Min. & Sci. Press, vol. 95, p 365. 5 columns. I.

SQUARE-SET MINING IN THE TAMARACK MINES. Min. & Sci. Press, vol 96, p. 848. Note.

SQUARE-SET MINING AT CANANEA. E & M. J., vol. 90, p. 915. 1 column

SQUARE-SET TIMBERING AT THE MOUNT MORGAN MINE E & M J., vol. 87, p. 749. 1 column. I.

TIMBERING IN THE TINTIC DISTRICT, UTAH Square-Sets. M & M., vol. 31, p 555. 1 column. I

SQUARE-SETS AT BISBEE, ARIZONA. Min. & Sci. Press, vol. 99, p. 360. ½ column.

THE CANANEA METHOD OF FRAMING SQUARE-SETS. E. & M J., vol. 90, p. 916. ½ column. I.

SQUARE-SETS USED IN THE ESPERANZA MINE, MEXICO Min & Sci Press, vol. 99, p. 847. ½ column.

SQUARE-SETS IN THE CENTRE STAR MINES, BRITISH COLUMBIA. E. & M. J., vol. 89, p. 18. 1½ columns. I.

METHOD OF SQUARE-SET STOPING AT BISBEE. By M. J. Elsing. E. & M. J., vol. 89, p. 707. 7 columns. I.

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Preservation of Mine Timber and Structural Steel

WOOD PRESERVATION FROM AN ENGINEERING STANDPOINT. By C. T. Barnum J. W. Soc. E., vol 15, p 346. 20 pages. I

THE EFFECT OF MOISTURE ON WOOD. P. C. M. & M Soc. S. A., vol. 7, p. 353. 2 columns.

OPEN-TANK METHOD OF PRESERVING TIMBER By H. F. Weiss E. & M. J., vol. 87, p. 840. 3½ columns.

CREOSOTE AS A TIMBER PRESERVATIVE E & M. J., vol. 90, p 1295. 2 columns.

WOOD PRESERVATION WITH SPECIAL REFERENCE TO MINE TIMBERS. By J M. Nelson. T. L. S. M. I., vol 14, p. 99. 18 pages. I.

PROLONGING THE LIFE OF MINE TIMBERS. By J W. Nelson. Min. & Sci. Press, vol. 95, p. 816. 6 columns. I.

PRESERVATION OF MINE TIMBERS. M. & M., vol. 29, p. 342. ¼ column.

PROLONGING THE LIFE OF MINE TIMBERS By J. M. Nelson M. & M., vol. 29, p. 137. 9 columns.

PRESERVATION OF MINE TIMBERS. By C A. Chase. E & M J., vol. 89, p. 453. ½ column.

PRESERVATION OF TIMBER By F H. Mason. Min. & Sci. Press, vol. 97, p. 837. 9½ columns. I.

THE PRESERVATION OF MINE TIMBERS. By J. M. Nelson. E. & M. J., vol. 88, p. 211. 4 columns. I.

PRESERVATION OF MINE TIMBERS FROM DECAY. P. C. M. & M. Soc. S. A., vol. 8, p. 28. 1½ columns.

THE PRESERVATIVE TREATMENT OF WOODS. P. C. M. & M Soc S A., vol. 5, p 68. ½ column

COAL TAR AND ITS PRODUCTS AS PRESERVATIVES FOR WOOD Min & Sci. Press, vol 20, p 10 2 columns.

THE PROTECTION OF MINE TIMBERS FROM FUNGUS. By J. Macoun. J. C. M. I., vol. 13, p. 467. 3 pages.

THE PRESERVATION OF STRUCTURAL TIMBERS FROM DECAY. By C. P. Winslow. P. E. Soc. W. Pa., vol. 26, p. 427. 58 pages. I.

See also KINDS OF SUPPORT, TIMBER, ETC.

PROTECTIVE COATINGS FOR STRUCTURAL MATERIALS. By R. S. Perry. J. W. Soc. E., vol. 14, p 399. 19 pages.

RUSTING OF IRON. By F. H. Mason. Min & Sci. Press, vol. 97, p. 329. 2½ columns.

RUST PREVENTIVE. Min. & Sci. Press, vol 95, p. 593. ½ column

PREVENTION OF RUSTING. Min & Sci. Press, vol. 96, p. 704. ¼ column.

RELATIVE CORROSION OF STEEL AND WROUGHT IRON TUBING. By H. M. Howe and B. Stoughton. E. & M. J., vol. 86, p. 563. 4½ columns.

CORROSION OF STEEL AND IRON TUBING. E & M. J., vol. 86, p. 821. 3 columns.

CORROSION OF IRON AND STEEL. By A. Sang. P. E. Soc. W. Pa., vol. 24, p. 493. 68 pages. I.

COST OF OPEN-TANK PLANTS FOR PRESERVING TIMBER. E. & M. J., vol. 87, p. 840 1 column.

See also COST OF PRESERVATION OF MINE TIMBER and COST OF MINE SUPPORT

PHOTOGRAPHY FOR MINES AND TECHNICAL WORK

PHOTOGRAPHY IN MINING. By T. R. Archbald. Min & Sci. Press, vol 99, p. 431. 1½ columns. I.

THE PANORAMIC CAMERA APPLIED TO PHOTO-TOPOGRAPHY. By C. W. Wright. T A I M. E., vol 38, p. 482. 15½ pages. I.

PHOTOGRAPHY IN MINING. By J. B. Lanfield. Min. & Sci. Press, vol. 98, p. 894. 2 columns.

MODERN PRACTISE IN COLOR PHOTOGRAPHY. By A. N. Goldsmith. Sch. Mines Quart., vol. 30, p. 130. 8 pages

POWER: STEAM, WATER, ELECTRICITY AND GAS

General Application of Power

POWER IN ITS RELATION TO THE INDUSTRIES. By C. E. Lucke. Sch. Mines Quart., vol. 31, p. 246 21 pages. I

POWER PLANT ECONOMICS AS APPLIED TO MINING. By H. Jalowick. E. & M. J., vol. 88, p. 1067 3½ columns. I.

ECONOMY OF POWER IN CRUSHING ORE. By E. A. Hersam. Min. & Sci. Press, vol. 95, p. 621. 12 columns.

See also the REDUCTION OF ORES, ETC

POWER REQUIRED FOR STAMP BATTERIES. E. & M. J., vol. 89, p. 258. 1 column. D.

See also STAMP MILL PRACTICE

POWER FOR CONCENTRATING MILL. By F. C. Bowman. M & M, vol. 31, p. 19 1½ columns Tables.

See also CONCENTRATION.

POWER REQUIRED FOR CONCENTRATING MACHINES. Min. & Sci. Press, vol. 101, p. 304 Table.

POWER USED IN MINING. By E. O'Toole. M & M, vol. 31, p. 86. 5½ columns I

POWER PRODUCTION AT COLLIERIES. M. & M., vol. 31, p. 33, 1½ columns; p. 180, 4 columns, I.

POWER SYSTEMS OF THE MINES OF THE JOPLIN DISTRICT. By D. F. Boardman. E. & M. J., vol. 86, p. 327. 7½ columns.

See also ELECTRICITY IN THE MINE, and GAS FOR POWER

EXHAUST-STEAM TURBINES AT LANCASHIRE COLLIERIES. By G. H. J. Hooghwinkel. T I M E, vol 37, p. 176 12 pages

THE RECOVERY OF POWER FROM EXHAUST STEAM. By W. M. Sanderson. T I. M. E., vol 38, p. 282 27 pages. I

RELATION OF LOAD FACTOR TO POWER COSTS. By E. W. Lloyd, C. A. S. Howlett and J. M. S. Waring. J. W. Soc. E., vol. 14, p. 241. 21½ pages. D.

See also COST OF POWER.

THE LAW OF CONSERVATION OF ENERGY. By C. P. Steinmetz. J. W. Soc. E., vol 15, p. 80. 12 pages. I.

ANALYSIS OF PROPOSED CHANGE IN POWER CONTRACT. By R. Sibley. E & M J., vol. 87, p. 794 7 columns D.

ELECTRIC DRIVE IN FOUNDRIES AND WORKS. By H. A. Carter. Min & Sci. Press, vol 100, p. 215 7 columns.

See also POWER TRANSMISSION, ETC.

See also FINE CRUSHING BY MILLS

Steam Boilers and Power Plants

STEAM BOILERS. A Few Hints as to Proper Management. By E. P. Lee. T. Au. I. M. E., vol 8, pt. 1, p. 97. 6 pages.

METHODS OF STUDYING THE HEAT-ABSORBING PROPERTIES OF STEAM BOILERS. By L. R. Stowe. J. W. Soc. E., vol. 13, p. 715. 31½ pages. D.

SOME RESULTS DUE TO IMPROVEMENT IN BOILER AND FURNACE DESIGN By A. Bement. J. W. Soc. E., vol. 13, p. 209. 74 pages. I

THE NATURE OF TRUE BOILER EFFICIENCY. By W. T. Ray and H. Kreisinger. J. W. Soc. E., vol. 12, p. 661. 40 pages. I

A NEW TYPE OF WATER TUBE BOILER. By T. H. McGraw, Jr. P. E. Soc. W. Pa., vol. 25, p. 491. 13 pages. I.

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- CRUSHING EFFICIENCY OF FINE GRINDING MACHINES.** By H. Stadler. Min. & Sci. Press, vol. 100, p. 900. 1½ columns.
- GRINDING TESTS AT PACHUCA.** By V. B. Sherrod. Min. & Sci. Press, vol. 100, p. 357. 6 columns. I.
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A MINE SIGNAL SYSTEM: Use of Sema-phores. Min. & Sci. Press, vol. 96, p. 106. 1 $\frac{1}{2}$ columns.

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A DISCUSSION OF MINE CURVE PROBLEMS. By J. E. Tiffany. E. & M. J., vol. 86, p. 230. 12½ columns. I.

CONTOUR MAPS OF ORE-BODIES. M. & M., vol. 29, p. 343. ½ column. I.

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PLUMBING A DEEP SHAFT. Min. & Sci. Press, vol. 95, p. 427. 1½ columns.

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TRANSPORTATION. By R. Reford. J. M. Soc. N. S., vol. 12, p. 23. 34 pages.

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PORTAGE IN THE BOLIVIAN TIN MILLS. E. & M. J., vol. 90, p. 1054. ½ column.

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MULE-BACK TRANSPORTATION OF SECTIONALIZED MACHINERY. By F. C. Roberts and W. W. Brady. Min. & Sci. Press, vol. 98, p. 751. 9½ columns. I.

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TRANSPORTATION OF COAL BY FLUME. By R. M. Magraw M. & M., vol. 30, p. 236 6 columns I.

TRANSPORT OF MACHINERY IN MOUNTAINOUS COUNTRIES By H. H. Kress and A. S. Cameron Min. & Sci. Press, vol. 95, p. 471 2 columns I.

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M. J., vol. 87, p. 712. 4 columns. Map.

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A EUROPEAN ELECTRIC COLLIERY RAILWAY. By J. B. Van Brussel. E. & M. J., vol. 89, p. 378. 5½ columns. I.

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It has been found impracticable to index all subjects considered in the references given in this work, but it is hoped that the present index will prove to be amply exhaustive to give ready access to any desired information.

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